

SITE INSPECTION REASSESSMENT

**St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia
CERCLIS WVD988783064**

Prepared for:

**West Virginia Department of Environmental Protection
Office of Environmental Remediation
601 57th Street
Charleston, West Virginia 25304**

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SITE INSPECTION REASSESSMENT

**ST. ALBANS TRAILER PARK
369 WEST MAIN STREET
ST. ALBANS, KANAWHA COUNTY, WEST VIRGINIA**

CERCLIS ID #WVD988783064

1.0 INTRODUCTION

1.1 Purpose

The purpose of this report is to provide a discussion of the scope of work and findings of site inspection reassessment (SIR) activities performed at the subject site. CORE Environmental Services, Inc. (CORE) has prepared this report for the United States Environmental Protection Agency (USEPA), Region III, and the West Virginia Department of Environmental Protection (WVDEP) Division of Land Resources (DLR) Office of Environmental Remediation (OER) under authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) through a Pre-Remedial Cooperative Agreement between the USEPA and the WVDEP.

The site is listed in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database as an active site with the identification WVD988783064. The site is not on the National Priorities List (NPL).

Assessment activities were conducted at the site in 1991 and 1993 due to the presence of an unidentified elastic polymer material in the ground at the mobile home park. A Site Inspection (SI) Narrative Report completed by the WVDEP in 1994 evaluated soil as well as surface water and sediment from on-site seeps and nearby Tackett Creek. However, groundwater was not sampled at that time and the source or quantity of the material was not identified. Therefore, this SIR was completed to address the “data gaps” associated with previous site investigations as well as to provide an update on current site conditions.

Prior to preparing this SIR report, CORE performed various work tasks under the approved Work Plan relative to the St. Albans Trailer Park CERCLIS site, including:

- Conflict of Interest disclosure as per the requirements of 40 CFR Part 35.6550 (Subpart O), submitted December 31, 2015.
- Sampling and Analysis Plan (SAP), which included a Field Sampling Plan (FSP), Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP) submitted to the WVDEP on May 4, 2016 and revised on July 27, 2016.

2.0 SITE INFORMATION AND HISTORY

2.1 Site Location

The St. Albans Trailer Park (herein referred to as the site) is located within a commercial and residential area of St. Albans, Kanawha County, West Virginia. The site is bordered to the south by West Main Street (Old Route 60), to the north by Tackett Creek and to the west by a wooded area. The site is bordered to the east by a parking area followed by the business A&B Used Cars. Coordinates for the site are 38.396484° north latitude and -81.852970° west longitude. The site location is depicted on Figure 1, Site Location Map. Land use in the area of the site includes residential, small business, industrial use and chemical manufacturing.

2.2 Site Description

The site is currently developed as a trailer park, although the majority of the trailers observed in 1991 and 1993 have been removed and removal activities at the site are ongoing. As of January 2017, there were three trailers currently on the site and those trailers were occupied by residents. The site slopes to the north/northeast toward Tackett Creek, and site elevations range from approximately 570 feet above mean sea level (msl) in the northern portion along Tackett Creek, to approximately 600 feet above msl in the southern portion along West Main Street. A paved parking area is located between the trailers and West Main Street. The portion of the site developed with the trailer park has been built up with fill material and leveled. The fill area is approximately 250 feet in length paralleling West Main Street and approximately 110 feet in width. A steep bank is located to the north and northeast, descending approximately 30 feet to the flood plain along Tackett Creek. There is very little drainage onto the site due to runoff from areas upgradient of the site being intercepted by storm drains along West Main Street. No storm water drains or manholes were observed on the site. One seep and one intermittent pool were observed at the base of the fill material slope. The site layout and surrounding vicinity is depicted on Figure 2, Site Layout Map.

2.3 Historical Operations

According to previous reports completed for the site, a drive-in restaurant historically operated on the site. The property was sold by the father of previous owner Mr. Frank Perrock to Mr. Melvin R. Scarberry and Joseph Murdico, who continued to operate the restaurant until it was destroyed in a fire. In January 1974, Mr. Clifford Thaxton purchased the site and reportedly began filling in the property in order to develop a trailer park. Mr. Frank Perrock purchased the property in September 1978 and continued to expand the trailer park by placing fill adjacent to the area where Mr. Thaxton had filled. The site is currently owned by Mr. Robert Walker, who purchased the property in 2016. In addition to the historical introduction of fill material to the site in the 1970's, unspecified disposal of trash and debris has historically occurred on the site.

2.4 Previous Investigations

The West Virginia Division of Natural Resources (WVDNR) received a complaint on June 12, 1991 concerning an unidentified material oozing out of the ground at the Perrock Mobile Home Park (the site) near Trailer lot #6. WVDNR confirmed the presence of the material on June 12, 1991. A summary of the historical site investigations is presented in the following sections.

2.4.1 Preliminary Assessment

The WVDEP investigated the site on June 14, 1991, and collected a sample at a 6-inch depth that measured 200-300 meter units on the OVA. After the sample sat in the sun for five minutes, readings were observed greater than 1,000 meter units. During the investigation of Trailer Lot #6, resident Mr. Kim Hartwell said that his son had noticed the "ooze" two weeks prior and claimed to suffer from headaches and leg sores. During this visit, the material appeared to be clear, sticky, very elastic and occupied crevasses in the soil of the trailer park. A sweep of the trailer park with OVA indicated no readings above background. These findings were reported to USEPA Region III, Regional Response Center and the Wheeling, West Virginia USEPA Office Technical Assistance Team (TAT). On June 20, 1991, TAT arrived at the trailer park and was informed by Mr. Hartwell of several small areas where the clear, sticky, elastic material was oozing out of the ground. TAT contacted WVDNR to obtain available background and other relevant information.

A sampling assessment was conducted at the site on June 20, 1991, by USEPA Region III, TAT. TAT was joined at the site by Mr. Hartwell, WVDEP personnel and the property owner. The material was found to be covered with a thin layer of dirt. The property owner explained that the ground on which Trailer Lot #6 and adjacent trailers were located existed fourteen years ago, when the property was purchased.

TAT conducted a survey of the area with photoionization detector (PID), OVA, Radiation Meter (RAD) and Combustible Gas Indicator (CGI). A reading of 50 meter units was obtained with the PID at the ground surface directly over the location where the material had surfaced. All other areas showed background levels. TAT obtained one sample of the near pure, opaque, adhesive, elastic material at a depth of five inches. OVA readings of the head space in the sample jar showed 30 meter units. The sample was packed and shipped to EHRT Laboratory in Cincinnati Ohio for volatile organics analysis (VOA) and base, neutral, acid (BNA) analysis with a library search.

Based on the analytical results of a sample collected from the waste material on June 20, 1991, no concentrations of identified or tentatively identified compounds that pose an immediate or substantial threat to human health were identified. The following VOAs and BNAs were tentatively identified in the surfacing material at the site: 2,3,4-trimethylhexane, 3-methylpentane, 3,4-dimethylheptane, 2-methyl decane, 2,2 4-trimethyl heptane, Heptane 2,2,4,6,6-pentamethyl, Octane 3,5-dimethyl, Octane 2,2,6-trimethyl, Hexane 1,2,3-trimethyl, Undecane 4-methyl, Hexane 3-ethyl, 3-methyl tetradecane, Hexane

2,2,5,5-tetramethyl, Decane 2,2,6-trimethyl, Decane 4-methyl, Undecane 3,3-dimethyl, Decane 2,2,3 trimethyl. Estimated concentrations of the following BNAs were also identified in the sample: Acenaphthylene, Phenanthrene, Anthracene, Di-n-butylphthalate, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Bis(2-Ethylhexyl)phthalate, Di-n- octylphthalate, Benzo(b)fluoranthene and Benzo(k)fluoranthene.

A Preliminary Assessment report completed by the WV Division of Natural Resources, Waste Management Section, in January 1992 concluded that a temporary barrier was needed to protect the residents from accidental exposure to the material. According to the report, the proximity of the surfacing material to the surrounding residences posed a potential threat via dermal contact with the material. The documented volatilization of the material posed an air migration hazard for residents of the area and the overland migration was a potential hazard for the wetlands and aquatic life of the downstream drainage ways including Tackett Creek, the Coal River and the Kanawha River.

The Preliminary Assessment report recommended additional sampling in order to determine the extent of the contaminated area, followed by removal of the hazardous material identified at the site to reduce the threat to the residents and the environment. The site was referred to the site assessment section of USEPA for further investigation.

2.4.2 Site Assessment Narrative Report

Between March 31 and April 1, 1993, the WVDEP Office of Waste Management re-mobilized to the site to collect samples as part of a Site Inspection (SI) Narrative Report. As part of SI activities, four surface water samples, four sediment samples and six soil samples (including two collected directly from the waste source) were collected at the site, as well as quality control samples. At the time of the SI, there were no known domestic water wells within the study area. Therefore, due to the lack of available groundwater sampling locations and targets, no groundwater samples were collected during the SI. Sample locations are illustrated on Figure 3, Historical Site Map.

Surface water sample SW-1 was obtained from Tackett Creek approximately 150 feet upstream of the site (near Route 60 culvert) and was used as a background sample. Surface water sample SW-2 was obtained from Tackett Creek approximately 150 feet downstream of the site. Sediment samples SD-1 and SD-2 were obtained from Tackett Creek at approximately the same locations as surface water samples SW-1 and SW-2, respectively. Surface water samples SW-5 and SW-6 were obtained from the western and eastern toes of the fill slope, respectively. Sediment samples SD-3 and SD-4 were obtained from the toe slope of the fill slope at approximately the same locations as surface water samples SW-5 and SW-6, respectively.

Soil sample SS-1 was obtained approximately 500 feet west of the site and served as a background sample. Soil sample SS-2 was collected between Trailer Lot #6 and Trailer Lot #7, from a depth of

surface to four feet below ground surface (bgs). Soil sample SS-3 was collected between Trailer Lot #7 and Trailer Lot #8, from a depth of surface to 3.5 feet bgs. Soil sample SS-4 was collected east of soil sample SS-2 from a depth of surface to three feet bgs. Waste source sample WS-1 was collected from the ooze where it breached the surface between Trailer Lot #6 and Trailer Lot #7. Waste source sample WS-2 was collected from the ooze encountered in a soil core between Trailer Lot #6 and Trailer Lot #7.

At the time of sampling in March and April 1993, the ooze appeared to have changed physical states from the sticky, elastic consistency observed in June 1991 to a more solid rubber condition. Very little, if any, organic vapors were observed when compared to the initial assessment in 1991. No meter readings above background were observed from the OVA. Therefore, no air samples were collected in March and April 1993.

Surface water, sediment and soil samples collected in March and April 1993 were laboratory analyzed for volatiles, BNAs, inorganics, pesticides, PCBs and dioxins. Analytical results of waste source samples collected in March and April 1993 revealed similar compounds to those tentatively identified in the sampling assessment on June 20, 1991. The concentration of aluminum (375 ug/L) exhibited at sample station SW-2 exceeded the established Ambient Water Quality Criteria (AWQC) standard for the protection of aquatic life of 87 ug/L. However, the background surface water sample SW-3 also exhibited a concentration of aluminum (216 ug/L) which exceeded the AWQC.

According to the 1994 SI Narrative Report, no measures were taken to reduce the threat of direct contact or inhalation in the residential area, and the actual amount of waste material in the fill was unknown.

3.0 ENVIRONMENTAL SETTING

3.1 Soils

The area of fill material on the site contains soil, rock and what appears to be construction debris (broken block, concrete, etc.) According to the 1994 SI Narrative Report, there was at least a very small quantity of chemical waste deposited on the site for which the origin remains unknown. During site inspection activities in October 2016, areas of concrete fill and tires were observed along Tackett Creek as well as in the northwestern portion of the site along the base of the fill material slope.

Naturally occurring soils at the site are designated as Udorthents, smoothed-urban land complex. This complex consists of nearly level to steep poorly drained to well drained smoothed urban land on uplands, terraces and flood plains. Areas of this complex tend to be rectangular in shape. The Udorthents, smoothed, part of this complex consist of truncated areas and areas of heterogeneous fill material. The areas that are filled are variable in thickness and types of material. Areas of these soils on terraces and flood plains consist mainly of materials transported by man from upland areas. Permeability, available water capacity, runoff and internal drainage are highly variable in the Udorthents, smoothed, part of this

complex. Some areas of this complex on terraces are underlain by former drainage ways that dissected the terrace and drained water from the uplands to the river.

3.2 Geology

Based on the West Virginia Geological and Economic Survey, Geologic Map of West Virginia, the site is located in the Appalachian Plateaus Physiographic Province. The site is directly underlain by Quaternary-aged Alluvium. The Quaternary Alluvium consists of alluvial deposits of sand, gravel, silt, and clay. Bedrock formations which outcrop within a four mile radius of the site are The Pennsylvanian Conemaugh Group and the Pennsylvanian Monongahela Group.

3.3 Groundwater

In October 2016, five permanent groundwater monitoring wells (TW-W and TW-1 through TW-4) were installed at the site and an adjacent property. The approximate locations of these wells are depicted on Figure 2, Site Layout Map. Depth to water measurements obtained at these wells in October 2016 ranged from 12.3 feet to 22.3 feet. Based on these groundwater measurements, groundwater at the site appears to flow north/northwest toward Tackett Creek.

According to the Safe Drinking Water Information System (SDWIS) database, there are no Public Service Districts (PSDs) located within four miles of the site that utilize groundwater for potable water supply. Water utility service is provided to the site by West Virginia American Water Company, Kanawha Valley District (American Water). American Water utilizes surface water from the Elk River for its supply source, and the intake is located approximately 1,250 feet upstream of the mouth of Tackett Creek. According to the SDWIS database, American Water has water supply System ID WV3302016 and services approximately 200,175 individuals.

Public sewer service is provided to the site by the St. Albans Municipal Utility Commission (MUC). The St. Albans MUC utilizes surface water from the Coal River for its source of supply, and the intake is located approximately 1.2 miles southeast of the site. According to the SDWIS database, the St. Albans MUC has water supply System ID WV3302031 and services approximately 13,265 individuals.

Based on knowledge of the site area, interviews with the site and adjacent property owners, and the fact that all areas within four (4) miles of the site are serviced by public water suppliers which utilize surface water, it is believed that groundwater in the site area is not utilized for potable use. According to the 1994 SI Narrative Report, the upper most aquifer of concern in the site area is the Quaternary Alluvium. The Quaternary Alluvium is reported to have moderate potential for industrial and municipal water supplies. The thickness is limited except along the lower mainstream of the Kanawha River and Teays Valley area.

3.4 Surface Water

Surface water at the site drains toward Tackett Creek, a tributary of the Coal River which borders the site to the north. Tackett Creek has a stream flow of less than 10 cubic feet per second (cfs), averages six feet across and is not utilized for any commercial purposes. Tackett Creek flows southeast approximately 4,750 feet to its confluence with the Coal River.

The Coal River is utilized for recreational boating, fishing and the municipal water supply of the St. Albans MUC. The St. Albans MUC intake is located approximately 1.2 miles southeast of the site, approximately 1,250 feet upstream of the mouth of Tackett Creek. There are no known drinking water intakes within 15 miles downstream of the site. The Coal River has a stream flow of approximately 100-1,000 cfs and flows north for approximately 1,000 feet to its confluence with the Kanawha River.

The Kanawha River is located north of the site and has a width of approximately 860 feet adjacent to the site. The Kanawha River flows generally northwest for approximately 45.3 miles to its confluence with the Ohio River. The Kanawha River is used for a variety of recreational purposes and goods transport, and it borders numerous industrial properties. Numerous chemical and industrial facilities are located along the river between the site area and for approximately 50 miles upstream that utilize the river water and discharge waste to the river.

During site inspection reassessment activities, one seep and one intermittent pool were identified at the base of the fill material slope. Both these areas were dry when observed on August 19, 2016 and October 11, 2016, but contained water on October 25, 2016. The site is not located within the floodplain associated with the Kanawha River.

3.5 Wetlands

According to the US Fish and Wildlife Service (USFWS) National Wetlands Inventory, there are no nationally recognized wetlands on the site.

3.6 Demographics

Population data for the site and surrounding area were obtained from the US Census Bureau, Missouri Census Data Center, Circular Area Profiles (CAPs) ACS Version (2011-2015 American Community Survey data). The estimated population surrounding the site is as follows:

Radius from Site	Estimated Population
5 miles	48,841
4 miles	33,810
3 miles	23,878
2 miles	13,469
1 mile	2,570

3.7 Climate

Climate information for Charleston, Kanawha County, West Virginia is available at the World Climate website. The average annual 24 hour average temperature is 55 degrees Fahrenheit. The average annual precipitation is 44 inches and the average monthly precipitation is 3.67 inches. According to the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service, the average two year 24 hour rainfall is 2.37 inches for St. Albans, West Virginia.

4.0 CURRENT INVESTIGATION

The USEPA and the WVDEP OER determined a SIR was warranted to assess potential risks associated with site and surrounding properties and to determine if the site should undergo further investigation under CERCLA.

4.1 Contaminants of Potential Concern

Based on previous investigations performed at the site, the following COPCs were identified for the site:

- Inorganics;
- VOCs; and,
- SVOCs.

4.2 Areas of Potential Concern

The field work completed as part of this SIR includes collection of samples at the St. Albans Trailer Park CERCLIS site from the following environmental media:

- Surface and subsurface soil;
- Groundwater from groundwater monitoring wells;
- Surface water and sediment from Tackett Creek; and,
- Surface water and sediment from seeps/intermittent pools at the base of the fill slope.

4.3 Pre-Sampling Activities

CORE performed the following pre-sampling activities prior to performing field sampling activities:

May 4, 2016 – CORE submitted the SAP, which included a FSP, QAPP, and HASP to WVDEP, OER. The SAP was subsequently approved by the WVDEP, OER on July 20, 2016.

August 23, 2016 – Using USEPA supplied forms, CORE e-mailed the routine analytical request for USEPA Contract Laboratory Program (CLP) services to the USEPA. CORE requested a 28 day data validation turnaround time. A copy of the USEPA Region III Sample Scheduling Request Form is included in the attached Appendix A, CLP Request Forms.

September 6, 2016 – CORE ordered sample preservatives and sample containers from Environmental Sampling Supply (ESS). Copies of the containers Certificates of Compliance are provided in Appendix B, Certificates of Compliance.

September 16, 2016 – USEPA Region III supplied the Case Number 46440 and lab assignments of ALS Environmental Laboratory Group for the organic analysis and Chemtex Environmental Lab for the inorganic analysis.

September 19, 2016 – CORE assigned CLP sample numbers using the USEPA Scribe Extensible Markup Language (Scribe XML) computer software program for each sample collected, based on location and analytical request. The CLP numbers and their associated sample locations are summarized on Table 1A, Soil Sample Collection Summary; Table 1B, Surface Water and Sediment Sample Collection Summary; and Table 1C, Groundwater Sample Collection Summary.

4.4 Field Sampling Activities

CORE performed field sampling activities at the site on October 11 and 21, 2016 in accordance with the approved Sampling and Analysis Plan. Six (6) groundwater samples, six (6) surface water samples, five (5) sediment samples, six (6) surface soil samples, and six (6) subsurface soil samples including field duplicates and background samples, were collected at the site during the sampling event. All analyses were performed in accordance with the current USEPA Region III CLP Statements of Work (SOW). The locations of the CLP sample identification numbers are depicted on Figure 5, CLP Sample Location Map.

Samples were placed into pre-cleaned, quality control sample containers. A sample label and sample tag were attached to each individual sample container. The sample containers were then placed into sealed, zip-lock bags and placed into coolers to maintain a temperature range of two to six degrees Centigrade during sample storage and shipment. The coolers were sealed and two custody seals were placed on each cooler. Throughout the sampling event, sample custody was maintained by CORE personnel.

CORE utilized the USEPA Scribe XML computer program to prepare laboratory Chain of Custody/Traffic Reports prior to sample shipment. The samples were shipped with the appropriate chain of custody forms via Federal Express® First Overnight delivery from Charleston and Morgantown, West Virginia to the appropriate CLP laboratory. Copies of the chain of custody are included in Appendix C, Chain of Custody.

The following laboratories performed the analyses:

CLP Organic: ALS Environmental Laboratory Group (ALS)
960 West Levoy Drive
Salt Lake City, UT 84123

CLP Inorganic: Chemtex Environmental Lab (Chemtex)
3082 25th St
Port Arthur, Texas 77642

The following personnel performed project management, sample collection, preservation, preparation, packaging and shipping tasks in accordance with the approved SAP:

- Rebecca Patton, Field Operations Manager (FOM), CLP and Scribe XML sample management
- Sotero Svingos, Field Sampling Technician
- Brian Liptock, Field Sampling Technician

4.5 Sample Preservation

Aqueous samples for volatile organic compounds (VOCs) were field preserved with hydrochloric acid (HCl) in order to achieve a sample pH of 2. Aqueous samples for metals were field preserved using nitric acid (HNO₃). CORE added approximately three milliliters (ml) to each one (1) liter plastic sample container at the site prior to sample collection in order to achieve a sample pH of <2. All aqueous and sediment samples were temperature preserved with ice immediately following sampling and during shipment to laboratories.

4.6 Sampling and Analysis Plan Deviations

Installation of temporary monitoring wells was specified in the SAP; however, groundwater monitoring wells were installed to permanent monitoring well standards in order to ensure accurate characterization of groundwater conditions and to allow for additional groundwater sample collection in the future, if warranted. The monitoring wells were installed in accordance with WV Code of State Rules *Title 47 Legislative Rule Division of Environmental Protection Office of Water Resources Series 60 Monitoring Well Design Standards* (47CSR60).

During groundwater sample collection on October 22, 2016, monitoring wells TW-W, TW-1 and TW-2 did not recharge to a sufficient volume to allow for purging and sampling. Due to a limited quantity of groundwater, there was insufficient groundwater volume to collect samples for analysis of inorganics at monitoring wells TW-W, TW-1 and TW-2. In addition, there was insufficient groundwater volume to collect a sample for analysis of semi-volatile organic compounds (SVOCs) at monitoring well TW-W.

A sediment sample was not collected at the location of surface water SW-6 because the sample area was observed to be an intermittent pool and no sediment was observed.

On January 3, 2017, one (1) sample was collected from the unknown waste material on the site for waste characterization profile analysis. This sample was collected in order to facilitate possible removal and

disposal of the material in the future. This additional site assessment activity is presented in Section 7.0. There were no other deviations from the approved SAP.

4.7 Field Observations

Field parameters including sample temperature, pH, specific conductivity, dissolved oxygen (DO) and oxidation reduction potential (ORP) were collected at groundwater and surface water sample locations. Field data is summarized in Table 2, Field Parameters. Photographs and sample log sheets recorded at each sample location are included in Appendix D, Site Photographs and Sample Log Sheets.

5.0 SITE INSPECTION REASSESSMENT

CORE performed site inspection reassessment activities at the St. Albans Trailer Park CERCLIS site on October 11 and 25, 2016. During the site assessment activities, the following samples were collected:

- Six surface soil samples (0-2 feet bgs), including one duplicate and one background sample;
- Six subsurface soil samples (>2 feet bgs), including one duplicate and one background sample;
- Six groundwater samples from permanent monitoring wells, including one duplicate and one background sample;
- Four surface water samples and four sediment samples from Tackett Creek, including one duplicate and one background sample; and,
- One surface water sample and one sediment sample from the seep at the base of the fill material slope, and one surface water sample from an intermittent pool at the base of the fill material slope.

5.1 Waste Material Observations

During site assessment activities on October 11, 2016, the unidentified waste material described in the 1992 Preliminary Report and the 1994 SI Narrative Report was observed between the former locations of Trailer Lot #6 and Trailer Lot #7. These trailers are no longer present on the site. A small amount of concrete had been placed over the material where it emerged from the ground. After the concrete pad was temporarily removed, the waste material was observed to be an elastic, stretchy, black and white polymer that resisted separation from itself. The material was visible at the ground surface in an approximately one-foot by two-foot area. Screening with a PID for volatile organic vapors in the vicinity of the material revealed a reading of 1,128 ppm.

Drilling approximately three feet east of the waste material for collection of soil samples WS-1 and WS-2 indicated that the waste material occupies a cavern/pocket in the ground approximately 1.5 feet to 19 feet bgs. Assuming the material is present in the ground between where it is visible at the surface and the drilling location, the volume of the material can be calculated to be at least 140 cubic feet. Full delineation of the waste material could not be performed due to the presence of debris and mobile homes in the immediate vicinity of the surface expression. As of January 2017, occupied mobile homes were

located approximately 40 feet east and 60 feet west of the location where the waste material was visible at the ground surface.

5.2 Soil and Subsurface Soil Sampling

On October 11, 2016, CORE supervised the advancement of five soil borings using direct push technology (DPT) services at the site. Surface and subsurface soil samples were collected from the following locations:

- Surface soil locations WS-1 and SS-1 through SS-4.
- Subsurface soil locations WS-2 and SB-1 through SB-4.
- One field duplicate sample from surface soil WS-1, identified as SS-5.
- One field duplicate sample from subsurface soil SB-5, identified as SB-5.

During soil boring advancement, soil lithology and conditions were logged in the field. The observed subsurface lithology generally included medium brown silty clay to silty sand. Bedrock was not encountered at all soil borings, but was observed at 23 and 29 feet bgs at borings WS-1 and SS-2, respectively. Moist or saturated conditions were observed at 14 feet bgs at the background boring SS-4 and between 20 and 24 feet bgs at on-site boring locations SS-1 and SS-3.

Field screening for relative VOC concentrations using a PID was performed during the advancement of soil borings. The highest levels of volatile organic vapors were detected at the location of surface soil sample WS-1 (1,128 parts per million (ppm)). Six total subsurface soil samples were collected from the soil sample interval from each boring which yielded the highest recorded VOC level or from the interval immediately above bedrock refusal or soil saturation. In addition, six total surface soil samples were collected from the top two feet of material at each soil boring location. Disposable EnCore™ 5-gram samplers were used to collect soil samples for analysis of VOCs. PID readings and soil sample collection depths are noted on soil boring logs included as Appendix E, Drilling Logs and Well Logs.

Soil samples WS-1 and WS-2 were obtained approximately three (3) feet east of where the unknown waste material was visible at the ground surface. The observed subsurface lithology at this boring consisted of brown sandy silt from 0-1.5 feet bgs, the unknown waste material from 1.5-19 feet bgs, and brown silt grading to sand from 19-23 feet bgs. Surface soil sample WS-1 was collected from a depth of 0-1.5 feet bgs and subsurface soil sample WS-2 was collected from 19-20 feet bgs.

Soil samples SS-1 and SB-1 were obtained north of soil sample WS-1, near the northern border of the site fill area. Surface soil sample SS-1 was collected from a depth of 0-2 feet bgs and subsurface soil sample SB-1 was collected from 24-26 feet bgs. Soil samples SS-2 and SB-2 were obtained at the western border of the fill area. Surface soil sample SS-2 was collected from a depth of 0-2 feet bgs and subsurface soil sample SB-2 was collected from 18-20 feet bgs. Soil samples SS-3 and SB-3 were

obtained at the eastern border of the fill area. Surface soil sample SS-3 was collected from a depth of 0-2 feet bgs and subsurface soil sample SB-3 was collected from 3-4 feet bgs.

Site-specific background soil samples SS-4 and SB-4 were obtained from approximately 75 feet southwest of the site. Surface soil sample SS-4 was collected from a depth of 0-2 feet bgs and subsurface soil sample SB-4 was collected from 3-4 feet bgs. Soil sample locations are depicted on Figure 4, Sample Location Map.

5.3 Groundwater Monitoring Well Installation

On October 11, 2016, following soil boring advancement, five groundwater monitoring wells (TW-W and TW-1 through TW-4) were installed via hollow stem auger at the locations of soil samples WS-1 and SS-1 through SS-4, respectively. The monitoring wells were installed to depths ranging from approximately 17 to 29 feet bgs. A one-inch diameter, factory slotted (0.010 inch) PVC well screen and approximately three to five feet of solid riser was installed in each boring. At each location, a silica sand pack was placed in the annular space to a depth of one foot above the screened interval. A bentonite seal was installed above the sand pack at each well. Monitoring wells TW-W and TW-1 through TW-4 were each finished with steel flush mount covers and secured with a locking cap. Driller supplied well logs are included as Appendix E, Drilling Logs and Well Logs.

Soil cuttings and disposable personal protective equipment (PPE) generated during the soil boring advancement and monitoring well installation were containerized in 55-gallon steel drums for disposal by a certified waste removal contractor at a later date.

5.4 Groundwater Sampling

On October 25, 2016, CORE collected six groundwater samples, including one field duplicate and one background sample, from the following locations:

- Groundwater monitoring wells TW-W and TW-1 through TW-4.
- One field duplicate sample from monitoring well TW-3, identified as TW-5.

Prior to the collection of groundwater samples on October 25, 2016, depth to groundwater measurements were obtained from all groundwater monitoring wells using a water level indicator capable of detecting groundwater to within 1/100 of a foot. Depth to water measurements ranged from 12.36 feet at monitoring well TW-2 to 22.33 feet at monitoring well TW-1. Groundwater elevations are presented in Table 2 - Field Parameters. Based on groundwater measurements obtained during site inspection activities, groundwater at the site appears to flow north/northwest toward Tackett Creek and the Kanawha River.

Prior to sample collection, monitoring wells TW-W and TW-1 through TW-4 were purged using low-flow purging methods. A peristaltic pump and dedicated disposable tubing were used to purge groundwater from each monitoring well at a rate that did not depress the water column below the top of the screened interval

or more than two feet from the initial level. Calculated well purging volumes were verified in the field by in-line monitoring of well purging parameters using a calibrated field meter that records pH, conductivity, temperature, and dissolved oxygen (DO). Purging continued until three successive readings of groundwater parameters measurements stabilized to within 10%. Field parameters noted during field sampling activities are provided in Table 2. Purge water removed from the wells was stored in 55-gallon steel drums for off-site disposal.

During groundwater sample collection on October 22, 2016, monitoring wells TW-W, TW-1 and TW-2 did not recharge to a sufficient volume to allow for purging. Due to the insufficient quantity of groundwater, groundwater samples for analysis of inorganics were not collected from monitoring wells TW-W, TW-1 and TW-2, and a groundwater sample for analysis of SVOCs was not collected from monitoring well TW-W. Groundwater sample locations are depicted on Figure 4, Sample Location Map.

5.5 Surface Water and Sediment Sampling

On October 25, 2016, CORE collected six surface water samples and five sediment samples, including one field duplicate and one background sample for each matrix, from the following locations:

- Surface water locations SW-1 through SW-4 and SW-6.
- Sediment locations SD-1 through SD-4.
- One field duplicate sample from surface water location SW-1, identified as SW-5.
- One field duplicate sample from sediment location SD-1, identified as SD-5.

Surface water samples SW-1 through SW-3 and sediment samples SD-1 through SD-3 were collected from Tackett Creek. Site-specific background surface water SW-1 was obtained from approximately 250 feet upstream of the site. Surface water sample SW-2 was obtained immediately north and downgradient of the site. Surface water sample SW-3 was obtained from approximately 160 feet downstream of the site. Sediment samples SD-1, SD-2 and SD-3 were obtained from the south bank of Tackett Creek from zero to six inches below ground surface (bgs) at approximately the same locations as surface water samples SW-1, SW-2 and SW-3, respectively. During sample collection, sediment was observed to be medium brown silty sand with organics intermixed. Concrete fill material was observed in the bank of Tackett Creek at the location of surface water sample SW-3. Small fish were observed in Tackett Creek at the location of surface water sample SW-2.

Surface water sample SW-4 was collected from a seep near the base of the fill material slope in the central portion of the site. Surface water sample SW-6 was collected from an intermittent pool near the slope base located northwest of surface water sample SW-4. Sediment sample SD-4 was collected at the location of surface water sample SW-4; no sediment was observed for collection at the location of surface water SW-6.

Surface water samples were collected prior to sediment samples from approximately one foot from the bank by directly filling the container from the surface water body. A calibrated multi-parameter meter was used to analyze samples in the field for water quality parameters including pH, temperature and conductivity. Sediment samples were collected using dedicated pre-cleaned disposable scoops and were then directly placed into sample containers. Disposable EnCore™ 5-gram samplers were used to collect sediment samples for analysis of VOCs. Surface water and sediment sample locations are depicted on Figure 4, Sample Location Map.

5.6 Quality Control Samples

Field QC samples were collected during the investigation that consisted of a field duplicate, matrix spike and matrix spike duplicate sample for each media (e.g. soil, groundwater, surface water and sediment) and a trip blank per cooler. The following QC samples are identified in Table 1:

- Field duplicate was collected from groundwater sample TW-3 and matrix spike and matrix spike duplicate samples were collected from groundwater sample TW-4;
- Field duplicate was collected from surface water sample SW-5 and matrix spike and matrix spike duplicate samples were collected from surface water sample SW-2;
- Field duplicate was collected from sediment sample SD-1 and matrix spike and matrix spike duplicate samples were collected from sediment sample SD-2;
- Field duplicate was collected from surface soil sample WS-1 and matrix spike and matrix spike duplicate samples were collected from surface soil sample SS-2; and,
- Field duplicate was collected from subsurface soil sample WS-2 and matrix spike and matrix spike duplicate were collected from subsurface soil sample SB-1.

5.7 Analytical Procedures and Data Validation Process

As per the approved Work Plan and as authorized by the USEPA Region III, Site Assessment Manager, field samples procured from the site were managed and analyzed according to the specifications of the analytical methods requested. Based on the DQOs for this project and as applicable, organic data was validated following M2 (Organic Level 2) procedures and inorganic data was validated following IM2 (Inorganic Level 2) procedures as outlined in the document, National Functional Guidelines for Superfund Organic Methods Data Review (September 2016) and National Functional Guidelines for Superfund Inorganic Methods Data Review (September 2016).

This data may be used to prepare a HRS site score by the USEPA and may be used to prepare a preliminary risk assessment, based on USEPA Risk Assessment Guidance for Superfund (RAGS) and the West Virginia Voluntary Remediation and Redevelopment Act (VRRDA). Finally, this data may also be used by the USEPA and/or WVDEP for regulatory decision making that could include pursuing further action under CERCLA, Order of Consent negotiations, listing of the site on the National Priority List (NPL) under CERCLA, or action under a State-lead program such as the West Virginia VRRDA. The following is a summary of the analytical procedures and data validation processes:

- Case 46440, Sample Delivery Group (SDG) C0AA2 consisted of twelve (12) soil samples including two (2) field duplicates analyzed for volatile and semivolatile compounds as well as select trace semivolatile compounds utilizing the Selected Ion Monitoring (SIM) technique. In addition, three (3) trip blanks were analyzed in SDG C0AA2 for volatiles and are associated with samples in this SDG. All samples were analyzed by ALS. Samples were analyzed according to CLP SOW SOM02.3 through the Routine Analysis Services (RAS) program. The data were validated according to the Organic National Functional Guidelines, utilizing the Environmental Data Exchange and Evaluation System (EXES) and is assigned the Superfund Data Validation Label S4VEM (Stage_4_Electronic_Manual). The report is included in the attached Appendix F, Organic Data Validation Report – Soil Samples.

Based on the data validation report, only minor problems were identified that qualified the organic soil data. Compounds detected below the Contract Required Quantification Limits (CRQLs) were qualified as estimated “J”. Tentatively identified compounds (TICs) were reported, but not validated.

- Case 46440, SDG MC0AA0, consisted of twelve (12) soil samples including two (2) field duplicates analyzed for total metals by ICP-MS. All samples were analyzed by Chemtex according to CLP SOW ISM02.3 through the Routine Analysis Services (RAS) program. The data were validated according to inorganic National Functional Guidelines, utilizing EXES and is assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). The report is included in the attached Appendix G, Inorganic Data Validation Report – Soil Samples.

Based on the data validation report, only minor problems were identified that qualified the inorganic soil data. Compounds detected below the CRQLs were qualified as estimated “J”. TICs were reported, but not validated. Antimony and selenium were detected in laboratory blanks associated with the samples in this SDG; samples which reported detected concentrations for these analytes less than the CRQL have been reported at the CRQL and qualified “U.”

- Case 46440, SDG C0AC0 and C0AF0 consisted of one (1) groundwater sample analyzed for trace volatiles, two (2) groundwater samples analyzed for volatile and semivolatile compounds, and three (3) groundwater samples, one (1) rinsate blank and six (6) surface water samples analyzed for volatile and semivolatile compounds as well as select trace semivolatile compounds utilizing the SIM technique. In addition, two (2) trip blanks were analyzed in SDG C0AC0 for volatiles and are associated with samples in this SDG. All samples were analyzed by ALS. Samples were analyzed according to CLP SOW SOM02.3 through the RAS program. The data were validated according to the Organic National Functional Guidelines, utilizing the Environmental Data Exchange and Evaluation System (EXES) and is assigned the Superfund

Data Validation Label S4VEM (Stage_4_Electronic_Manual). The report is included in the attached Appendix H, Organic Data Validation Report – Groundwater and Surface Water Samples.

Based on the data validation report, major and minor problems were identified that qualified the organic groundwater and surface water data. Laboratory Control Samples (LCS) reported 0% recovery for 2,4-dimethylphenol, 2,6-dinitrotoluene, 2-chloronaphthalene and hexachlorobutadiene in the semivolatile fraction and for 2,4-dimethylphenol and hexachlorobutadiene in the semivolatile SIM fraction. No positive results were reported for these compounds. Quantitation limits for these compounds in the respective fractions have been rejected and qualified “R.” TICs were reported, but not validated. Compounds detected below the CRQLs were qualified as estimated “J.” The qualified data based on the minor problems is provided in the attached Summary Analytical Tables.

- Case 46440, SDG MC0AC0 and MC0AF0, consisted of six (6) surface water samples, three (3) groundwater samples, including two (2) field duplicate samples and one rinsate blank sample analyzed for total metals by ICP-MS. All samples were analyzed by Chemtex according to CLP SOW ISM02.3 through the RAS program. The data were validated according to inorganic National Functional Guidelines, utilizing EXES and is assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). The report is included in the attached Appendix I, Inorganic Data Validation Report – Groundwater and Surface Water Samples.

Based on the data validation report, no major or minor problems were identified that qualified the inorganic aqueous data due to lack of positive results above the CRQLs. Compounds detected below the CRQLs were qualified as estimated “J.” The rinsate blank sample reported positive results greater than the CRQL for aluminum, calcium, magnesium, potassium, sodium and zinc, and less than the CRQL for barium, chromium, copper, manganese and nickel. Due to the very high concentrations of analytes in the rinsate blank and apparent gross contamination, the rinsate blank results were not used to qualify field sample results.

- Case 46440, Sample Delivery Group (SDG) C0AD0 consisted of five (5) sediment samples including one (1) field duplicate analyzed for volatile and semivolatile compounds as well as select trace semivolatile compounds utilizing the SIM technique. Sample C0AE5 is the trip blank associated with volatile samples in this SDG but was analyzed and reported in SDG C0AC0. All samples were analyzed by ALS. Samples were analyzed according to CLP SOW SOM02.3 through the RAS program. The data were validated according to the Organic National Functional Guidelines, utilizing the Environmental Data Exchange and Evaluation System (EXES) and is assigned the Superfund Data Validation Label S4VEM (Stage_4_Electronic_

Manual). The report is included in the attached Appendix J, Organic Data Validation Report – Sediment Samples.

Based on the data validation report, major and minor problems were identified that qualified the organic sediment data. The Relative Response Factor (RRF) for naphthalene was outside the control limit in the SIM continuing calibration standard associated with all samples. Positive result for naphthalene in sample C0AD2 has been qualified as estimated “J.” Quantitation limits for this compound in the remaining SIM samples have been rejected and qualified “R.” TICs were reported, but not validated. The qualified data based on the minor problems is provided in the attached Summary Analytical Tables.

- Case 46440, SDG MC0AD0, consisted of five (5) sediment samples including one (1) field duplicate analyzed for total metals by ICP-MS. All samples were analyzed by Chemtex according to CLP SOW ISM02.3 through the RAS program. The data were validated according to inorganic National Functional Guidelines, utilizing EXES and is assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). The report is included in the attached Appendix K, Inorganic Data Validation Report – Sediment Samples.

Based on the data validation report, no major or minor problems were identified that qualified the inorganic aqueous data due to lack of positive results above the CRQLs. Compounds detected below the CRQLs were qualified as estimated “J.”

- Case 46640, SDG C0AE0 consisted of three (3) trip blank samples and one rinsate blank sample analyzed for volatile and semivolatile compounds as well as select trace semivolatile compounds utilizing the SIM technique. All samples were analyzed by ALS according to CLP SOW SOM02.3 through the RAS program. The data were validated according to the Organic National Functional Guidelines, utilizing the EXES and is assigned the Superfund Data Validation Label S4VEM (Stage_4_Electronic_Manual). The report is included in the attached Appendix L, Organic Data Validation Report – Quality Control Samples.

Based on the data validation report, major and minor problems were identified that qualified the data. LCS reported 0% recovery for 2,4-dimethylphenol, 2,6-dinitrotoluene, 2-chloronaphthalene and hexachlorobutadiene in the semivolatile analysis and 0% recovery for hexachlorobutadiene in the semivolatile SIM analysis. No positive results were reported for these compounds. Quantitation limits for these compounds in the semivolatile fraction have been rejected and qualified “R.” Compounds detected below the CRQLs were qualified as estimated “J.” The qualified data based on the minor problems is provided in the attached Summary Analytical Tables.

- Case 46640, SDG MC0AE1, consisted of one (1) rinsate blank sample analyzed for total metals by ICP-AES. The sample was analyzed by ChemTech according to CLP SOW ISM02.3 through the RAS program. The data were validated according to inorganic National Functional Guidelines, utilizing EXES and is assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). The report is included in the attached Appendix M, Inorganic Data Validation Report – Quality Control Samples. Based on the data validation report, laboratory quality control analyses were performed on sample MC0AE1, which is a rinsate blank. No data were qualified based on this finding.

5.8 Analytical Discussion

Based on the COPCs identified at the site, CORE has reviewed the October 2016 SIR laboratory analytical data to identify and select COCs for the site. A COPC is defined as any individual compound or analyte that was analyzed under the most recent site assessment activities. COCs were selected based on the Applicable or Relevant and Appropriate Requirements (ARARs) which consisted of screening levels from the USEPA Regional Screening Levels (RSLs), National Primary Drinking Water Standards, USEPA Region III Ecological Risk Assessment Benchmarks and (in the absence of federal standards) WVDEP De Minimis Standards. This criteria requires that to be selected as a COC, a compound or analyte must be detected at least once at a concentration greater than the CRQL, and at a concentration greater than the applicable screening levels to which it is compared.

The occurrence and distribution of COPCs, selection of COCs, and the specific risk based value or criteria used for comparison purposes are summarized relative to environmental media in the attached Summary Analytical Tables (Tables 3 through 7). The frequency of detection and comparison of these data to the applicable environmental standards and criteria are presented in the following subsections. Sample locations are depicted on Figure 4, Sample Location Map and Figure 5, CLP Sample Location Map.

5.8.1 Surface Soil

The CLP Target Analyte List (TAL) total metals (inorganics), TCL VOC and TCL SVOC were analyzed in surface soil samples collected during the SIR. The concentrations of parameters detected above CRQLs were compared to USEPA RSLs for residential soil (May 2016) to determine COCs relative to human health exposure pathways. Surface soil sample SS-4 was considered the background sample for the site; therefore, HRS Observed Releases were determined based on a comparison to their respective CRQLs or positive results for SS-4, if available, and SS-4 analytical data was not included in the frequency of detects or minimum and maximum concentrations. Surface soil analytical results are summarized in Tables 3A through 3C.

Concentrations of arsenic were detected in exceedance of USEPA RSLs for residential soil at all sample locations. However, concentrations of arsenic did not exceed the WV Natural Background Level for

arsenic of 13 milligrams per kilogram (mg/kg), as defined in Table 2-3, West Virginia Voluntary Remediation and Redevelopment Act Guidance Manual, Version 2.1. Therefore, arsenic was not considered a COC for surface soil. Concentrations of benzo(a)pyrene were detected in exceedance of USEPA RSLs for residential soil at all sample locations (including off-site background location SS-4), with the exception of field duplicate sample SS-5. All other inorganics, VOCs and SVOCs were either not detected at concentrations greater than the CRQL, or were detected at concentrations less than their respective USEPA RSLs for residential soil.

5.8.2 Subsurface Soil

The CLP TAL total metals (inorganics), TCL VOC and TCL SVOC were analyzed in subsurface soil samples collected during the SIR. The concentrations of parameters detected above CRQLs were compared to USEPA RSLs for residential soil (May 2016) to determine COCs relative to human health exposure pathways. Subsurface soil sample SB-4 was considered the background sample for the site; therefore, HRS Observed Releases were determined based on a comparison to their respective CRQLs or positive results for SB-4, if available, and SB-4 analytical data was not included in the frequency of detects or minimum and maximum concentrations. Subsurface soil analytical results are summarized in Tables 4A through 4C.

Concentrations of arsenic were detected in exceedance of USEPA RSLs for residential soil at all subsurface soil sample locations. However, concentrations of arsenic did not exceed the WV Natural Background Level for arsenic of 13 mg/kg; therefore, arsenic was not considered a COC in subsurface soil. Concentrations of benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene and dibenzo(a,h)anthracene were detected in exceedance of USEPA RSLs for residential soil at subsurface soil sample SB-3. All other inorganics, VOCs and SVOCs were either not detected at concentrations greater than the CRQL, or were detected at concentrations less than their respective USEPA RSLs for residential soil.

5.8.3 Groundwater

The CLP TAL total metals (inorganics), TCL VOC and TCL SVOC were analyzed in groundwater samples collected during the SIR. The concentrations of parameters detected above CRQLs were compared to USEPA RSLs for Tapwater (May 2016), National Primary Drinking Water Standards (May 2009), and WVDEP De Minimis standards for groundwater (June 2014) to determine COCs relative to human health exposure pathways.

Groundwater sample TW-4 was considered the background sample for groundwater at the site; therefore HRS Observed Releases were determined based on a comparison to their respective CRQLs or positive results for TW-4, if available, and TW-4 analytical data was not included in the frequency of detects or minimum and maximum concentrations. Groundwater analytical results are summarized in Tables 5A through 5C.

Concentrations of arsenic, iron and manganese were detected in exceedance of USEPA RSLs for Tapwater. However, the highest concentrations of these compounds were observed at site-specific background sample TW-4, which was obtained approximately 75 feet southwest of the site. Therefore, these COCs may originate from an off-site source and are not entirely attributed to the site. All other inorganics, VOCs and SVOCs were either not detected at concentrations greater than the CRQL, or were detected at concentrations less than their respective USEPA RSLs for Tapwater.

5.8.4 Surface Water

The CLP TAL total metals (inorganics), TCL VOC and TCL SVOC were analyzed in surface water samples collected from Tackett Creek and on-site seeps/intermittent pools during the SIR. The concentrations of parameters detected above CRQLs were compared to USEPA RSLs for Tapwater (May 2016), National Primary Drinking Water Standards (May 2009), and WVDEP De Minimis standards for groundwater (June 2014) to determine COCs relative to human health exposure pathways, and USEPA Region III Ecological Risk Assessment, Freshwater Benchmarks (July 2006) to determine COCs relative to ecological exposure pathways.

Surface water sample SW-1 was considered the background sample for the site; therefore, HRS Observed Releases were determined based on a comparison to their respective CRQLs or positive results for SW-1, if available, and SW-1 analytical data was not included in the frequency of detects or minimum and maximum concentrations. Surface water analytical results are summarized in Tables 6A through 6F.

Concentrations of arsenic and manganese were detected in exceedance of USEPA RSLs for Tapwater. All other inorganics, VOCs and SVOCs were either not detected at concentrations greater than the CRQL, or were detected at concentrations less than their respective USEPA RSLs for Tapwater.

Concentrations of aluminum, barium, iron and manganese were detected in exceedance of USEPA Region III Freshwater Screening Benchmarks. All other inorganics, VOCs and SVOCs were either not detected at concentrations greater than the CRQL, or were detected at concentrations less than their respective USEPA Region III Freshwater Screening Benchmarks.

5.8.5 Sediment

The CLP TAL total metals (inorganics), TCL VOC and TCL SVOC were analyzed in sediment samples collected from Tackett Creek and on-site seeps/intermittent pools during the SIR. The concentrations of parameters detected above CRQLs were compared to USEPA RSLs for residential soil (May 2016) to determine COCs relative to human health exposure pathways, and USEPA Region III Ecological Risk Assessment, Freshwater Sediment Benchmarks (August 2006) to determine COCs relative to ecological exposure pathways.

Sediment sample SD-1 was considered the background sample for the site; therefore, HRS Observed Releases were determined based on a comparison to their respective CRQLs or positive results for SD-1, if available, and SD-1 analytical data was not included in the frequency of detects or minimum and maximum concentrations. Sediment analytical results are summarized in Tables 7A through 7F.

Concentrations of benzo(a)pyrene and dibenzo(a,h)anthracene were detected in exceedance of USEPA RSLs for residential soil. Concentrations of arsenic were detected above the USEPA Region II RSLs for residential soil but below the WV Natural Background Level for arsenic in soil. Therefore, arsenic was not considered a COC in sediment. All other inorganics, VOCs, and SVOCs were either not detected at concentrations greater than the CRQL, or were detected at concentrations less than their respective USEPA RSLs for residential soil.

Concentrations of manganese, acenaphthylene, pyrene, benzo(a)anthracene, bis(2-ethylhexyl)phthalate and indeno(1,2,3-cd)pyrene were detected in exceedance of USEPA Region III Freshwater Sediment Screening Benchmarks. Concentrations of antimony, copper and zinc were detected in exceedance of USEPA Region III Freshwater Sediment Screening Benchmarks at sediment sample SD-5. Sediment sample SD-5 is a field duplicate of site-specific background sample SD-1, which was obtained approximately 250 feet upstream of the site. Therefore, these COCs may originate from an off-site source and are not entirely attributed to the site. All other inorganics, VOCs and SVOCs were either not detected at concentrations greater than the CRQL, or were detected at concentrations less than their respective USEPA Region III Freshwater Sediment Screening Benchmarks.

5.9 COC Selection

CORE selected COCs based on the occurrence, distribution, and frequency of detection for COPCs using the rationale summarized in USEPA RAGS and Section 2.6 of the VRRDA Guidance Manual. To be selected as a COC, a compound or analyte had to be detected at least once at a concentration greater than the CRQL, and at a concentration greater than the applicable screening value to which it was compared. Based on a review of the data collected during the current site assessment activities, the following tables summarizes the COCs, by media and the associated ARARs that were observed at the St. Albans Trailer Park CERCLIS site in October 2016.

The following table provides COCs that result in potentially complete human health exposure pathways from surface soil, subsurface soil and sediment within one mile of the site:

Surface Soil	Subsurface Soil	Sediment – Tackett Creek	Sediment – Base of fill material slope
<i>USEPA RSLs for Residential Soil</i>			
SVOC			
Benzo(a)pyrene	Benzo(a)pyrene	Benzo(a)pyrene	Benzo(a)pyrene
	Benzo(a)anthracene	Dibenzo(a,h)anthracene	Dibenzo(a,h)anthracene
	Benzo(b)fluoranthene		
	Indeno(1,2,3-cd)pyrene		
	Dibenzo(a,h)anthracene		

The following table provides COCs that result in potentially complete human health exposure pathways from groundwater and surface water within one mile of the site and surface water within one mile of the site:

Groundwater	Surface Water – Tackett Creek	Surface Water – Base of fill material slope
<i>USEPA RSLs for Tapwater</i>		
INORGANICS		
Arsenic	Arsenic	Arsenic
Manganese	Manganese	Manganese
Iron		

The following table provides COCs that result in potentially complete ecological exposure pathways from surface water within one mile of the site:

Surface Water – Tackett Creek	Surface Water – Base of fill material slope
<i>USEPA Region III Freshwater Screening Benchmarks</i>	
INORGANICS	
Barium	Barium
Manganese	Manganese
Aluminum	
Iron	

The following table provides COCs that result in potentially complete ecological exposure pathways from sediment within one mile of the site:

Sediment – Tackett Creek	Sediment – Base of fill material slope
<i>USEPA Region III Freshwater Sediment Screening Benchmarks</i>	
INORGANICS	
Antimony	
Copper	
Manganese	
Zinc	
SVOC	
Acenaphthylene	Acenaphthylene
Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-cd)pyrene
Pyrene	
Benzo(a)anthracene	
Bis(2-ethylhexyl)phthalate	

6.0 VERIFICATION OF CONCEPTUAL SITE MODEL

The purpose of the conceptual site model (CSM) is to describe the transport mechanisms from sources through the environment to potential human health and ecological receptors. The CSM helps to identify and provide visual representation of the following:

- Source of environmental release (underground storage tank, surface spill, etc.);
- Transport mechanisms (groundwater movement, volatilization through air, etc.);
- Media affected by the release (soil, groundwater, air);
- Exposure routes for the respective receptor(s) (ingestion, inhalation, dermal contact); and,
- Receptor(s) (residential, commercial, visitors).

6.1 Potential Receptors

The site is located in a commercial and residential area. As of January 2017, there were three trailers currently on the site occupied by residents. Although mobile home removal activities were ongoing at the site in 2016, planned future use of the site is unknown. A commercial auto-sales business is located adjacent and east of the site. Therefore, it was determined that the following potential receptors were appropriate:

- commercial worker;
- trespassers/visitors;
- residents; and,
- construction workers.

6.2 Complete Human Health Exposure Pathways

An illustration of the Human Health Conceptual Site Model is presented as Figure 6. The complete human health exposure pathways for the site are as follows:

Surficial Soil – Direct Contact

The COC identified in the surficial soil in excess of USEPA RSLs for residential soil is benzo(a)pyrene. Future receptors may be exposed to surficial soil via incidental ingestion and dermal contact.

Surface Water – Direct Contact

The COC identified in surface water in excess of USEPA RSLs for Tapwater are arsenic and manganese. Future receptors have the potential to come into direct contact with or incidentally ingest surface water during work or recreational activities.

Sediment – Direct Contact

The COC identified in sediment in excess of USEPA RSLs for residential soil are benzo(a)pyrene and benzo(a)anthracene. Future receptors have the potential to come in direct contact with or incidentally ingest sediment during work or recreational activities.

Subsurface Soil – Direct Contact

Future construction workers have the potential to come in direct contact with or incidentally ingest subsurface soil during excavation activities. Commercial workers, visitors and residents are not considered receptors for this pathway because they are not likely to be in contact with subsurface soil which is greater than two feet bgs.

Groundwater – Direct Contact

Future construction workers have the potential to come in direct contact with or incidentally ingest groundwater during excavation activities. Commercial workers, visitors and residents are not considered receptors for this pathway because of depth to groundwater at the site and the fact that site groundwater is not utilized as a potable source.

6.3 Complete Ecological Exposure Pathways

Ecological exposure pathways are potentially complete for aquatic, semi-aquatic and terrestrial life due to COC detected within the surface water and sediment of Tackett Creek and seeps/intermittent pools at the base of the fill material slope. An illustration of the Ecological Conceptual Site Model is presented as Figure 7.

7.0 WASTE CHARACTERIZATION PROFILE SAMPLING

During site inspection activities in October 2016, the elastic polymer waste material at the site was

observed to be of a larger volume than anticipated based on historical reports. Therefore, CORE conducted waste characterization profile sampling of the unknown waste material in order to facilitate possible removal and disposal of the material in the future. The waste characterization sample was analyzed for toxicity characteristic leaching procedure (TCLP) metals according to CLP SOW ISM02.3 through the RAS program, TCLP VOCs and SVOCs according to CLP SOW SOM02.3 through the Delivery of Analytical Services (DAS) program and Ignitability/Flashpoint via USEPA method 1010A through the DAS program.

7.1 Pre-Sampling Activities

CORE performed the following pre-sampling activities prior to collection of the waste characterization sample:

October 20, 2016 – CORE submitted the analytical request for USEPA CLP services to USEPA. CORE requested a 14 day data turnaround time. Data validation was originally requested but was canceled via email on November 30, 2016. A copy of the USEPA Region III Sample Scheduling Request Form is included in Appendix N, Waste Characterization Sample Documentation.

November 7, 2016 – USEPA Region III supplied the Case Number 46642 and lab assignments of Chemtex Environmental Lab for the inorganic TCLP analysis and the USEPA Environmental Science Center for ignitability analysis. No bids were received from CLP laboratories for the organic TCLP analysis; therefore, CORE retained Research Environmental and Industrial Consultants Inc. (REIC) Laboratory to perform TCLP VOC and SVOCs analysis.

7.2 Sample Collection

CORE performed field sampling activities at the site on January 3, 2017. All analyses were performed in accordance with the current USEPA Region III CLP SOW. A table summarizing CLP numbers for the RAS and DAS programs is included in Table 1D - Waste Characterization Sample Collection Summary

On January 3, 2017, one (1) waste sample was collected directly from the unknown elastic polymer material located at the site between the former locations of Trailer Lot #6 and Trailer Lot #7. The concrete pad covering the material was temporarily removed for sampling activities, and the sample was collected from a depth of approximately zero to 12 inches. During sample collection, the waste material was observed to be a black and white polymer that resisted separation from itself. The concrete pad was returned to its position covering the waste material upon completion of sampling.

Samples were placed in pre-cleaned, quality control sample containers and a sample label and sample tag were attached to each individual sample container. The sample containers were then placed into sealed, zip-lock bags and placed into coolers to maintain a temperature range of two to six degrees Centigrade

during sample storage and shipment. The coolers were sealed and two custody seals were placed on each cooler. Throughout the sampling event, sample custody was maintained by CORE personnel.

CORE utilized the USEPA Scribe XML computer program to prepare laboratory Chain of Custody/Traffic Reports prior to sample shipment. The samples were shipped with the appropriate chain of custody forms via Federal Express® First Overnight delivery from Charleston, West Virginia to the appropriate CLP laboratories and Tier IV laboratory. Copies of the chain of custody are included in Appendix N, Waste Characterization Sample Documentation.

The following laboratories performed the waste characterization analyses:

TCLP Organic: REIC Laboratory
225 Industrial Park Road
Beaver, West Virginia, 25813

TCLP Inorganic: Chemtex Environmental Lab (Chemtex)
3082 25th St
Port Arthur, Texas 77642

Ignitability: Environmental Science Center
Office of Analytical Services and Quality Assurance (OASQA)
701 Mapes Road
Fort Meade, Maryland 20755

7.3 Analytical Results

The January 2017 waste characterization profile sample analytical results are presented in tabular form in Table 8. The waste characterization analytical results can be utilized in the future if off-site disposal of the unknown waste material is warranted. The laboratory analytical reports are included in Appendix O, Waste Characterization Analytical Reports.

8.0 CONCLUSIONS

The St. Albans Trailer Park is located within a commercial and residential area of St. Albans, Kanawha County, West Virginia. The site is currently developed with three occupied mobile homes. The portion of the site developed with the trailer park has been built up with fill material and leveled. The fill area is approximately 250 feet in length paralleling West Main Street and approximately 110 feet in width. A steep bank is located to the north and northeast, descending approximately 30 feet to the flood plain along Tackett Creek. Elevations at the site range from approximately 570 feet above msl in the northern portion along Tackett Creek, to approximately 600 feet above msl in the southern portion along West Main Street.

The USEPA and the WVDEP OER determined a SIR was warranted to assess potential risks associated with site and surrounding properties and to determine if the Site should undergo further investigation under CERCLA.

Assessment activities were conducted at the site in 1991 and 1993 due to the presence of an unidentified elastic polymer material in the ground at the mobile home park. A Site Inspection (SI) Narrative Report completed by the WVDEP in 1994 evaluated soil as well as surface water and sediment from on-site seeps and a nearby stream. However, groundwater was not sampled at that time and the source or quantity of the material was not identified. Therefore, this SIR was completed to address the “data gaps” associated with previous site investigations as well as to provide an update on current site conditions.

CORE performed site inspection reassessment activities at the St. Albans Trailer Park CERCLIS site on October 11 and 25, 2016. During the site assessment activities, samples were collected from site soil, groundwater, and surface water and sediment from Tackett Creek and seeps/intermittent pools at the base of the fill material slope. The samples were analyzed for inorganics, VOCs, and SVOCs. Analytical results were compared to ARARs to determine potentially complete exposure pathways for further risk assessment and/or HRS evaluation.

Based on the current site assessment activities, COCs were identified for the site which consisted of inorganics and SVOCs in surface soil, subsurface soil and sediment, and inorganics in surface water and groundwater.

In summary, CORE concludes the following with regard to the St. Albans Trailer Park CERCLIS site:

- Human health exposure pathways are potentially complete based on COCs (SVOCs) detected in soil and sediment in Tackett Creek and on-site seeps and intermittent pools above USEPA RSLs for residential soil.
- Human health exposure pathways are potentially complete based on COCs (inorganics) detected in groundwater and surface water in Tackett Creek and on-site seeps and intermittent pools above USEPA RSLs for tapwater.
- Ecological exposure pathways are potentially complete based on COCs (inorganics) detected in surface water in Tackett Creek and on-site seeps and intermittent pools above USEPA Freshwater Screening Benchmarks.
- Ecological exposure pathways are potentially complete based on COCs (inorganics and SVOCs) detected in sediment in Tackett Creek and on-site seeps and intermittent pools above USEPA Freshwater Sediment Screening Benchmarks.

9.0 REFERENCES

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- Missouri Census Data Center, Circular Area Profiles, ACS Version, 2011-2015 American Community Survey data.
- USEPA, Contract Laboratory Program Guidance for Field Samplers, October 2014.
- USEPA Freshwater Screening Benchmarks, <https://www.epa.gov/risk/freshwater-screening-benchmarks>
- USEPA Freshwater Sediment Screening Benchmarks, <https://www.epa.gov/risk/freshwater-sediment-screening-benchmarks>
- USEPA Guidance for Data Usability in Risk Assessment (Part A). Office of Solid Waste and Emergency Response, Washington, D.C. Publication 9285.7-09A, April 1992.
- USEPA Guidance for Performing Site Inspections Under CERCLA, 540-R-92-021, September 1992.
- USEPA Risk Assessment Guidance for Superfund (RAGS), Volume I, Part A, Human Health Evaluation Manual. EPA/540/1-89/002.
- USEPA Safe Drinking Water Information System – www.epa.gov/safewater/dwinfo.htm.
- Weathersource, Weather Data Website – weathersource.com.
- West Virginia Geological and Economic Survey, 1968, Geologic Map of West Virginia.
- WVDEP, West Virginia Voluntary Remediation and Redevelopment Act Guidance Manual (Version 2.1). Voluntary Remediation Program. Charleston, West Virginia.
- WV Division of Natural Resources, Waste Management Section, Preliminary Assessment for Saint Albans Trailer Park, January 1992.
- WVDEP Office of Waste Management, Site Inspection Narrative Report – Saint Albans Trailer Park, March 1994.

TABLES

Table 1A - Soil Sample Collection Summary

St. Albans Trailer Park CERCLIS Site

St. Albans, Kanawha County, West Virginia

Sample ID	CLP Number	Sample Identifier	Matrix	Analysis	Tag Numbers	Sample Type	Date	Time
WS-1	MC0AA0	46440-0001	Surface Soil	CLP TAL Total Metals	1000	Field sample	10/11/2016	16:20
WS-1	C0AA0	46440-0001	Surface Soil	CLP TCL VOCs and TCL SVOCs	1001, 1002, 1003	Field sample	10/11/2016	16:20
SS-1	MC0AA1	46440-0002	Surface Soil	CLP TAL Total Metals	1004	Field sample	10/11/2016	14:05
SS-1	C0AA1	46440-0002	Surface Soil	CLP TCL VOCs and TCL SVOCs	1005, 1006, 1007	Field sample	10/11/2016	14:05
SS-2	MC0AA2	46440-0003	Surface Soil	CLP TAL Total Metals	1008	Field sample/MS/MSD	10/11/2016	11:55
SS-2	C0AA2	46440-0003	Surface Soil	CLP TCL VOCs and TCL SVOCs	1009, 1010, 1011, 1229-1236	Field sample/MS/MSD	10/11/2016	11:55
SS-3	MC0AA3	46440-0004	Surface Soil	CLP TAL Total Metals	1012	Field sample	10/11/2016	10:40
SS-3	C0AA3	46440-0004	Surface Soil	CLP TCL VOCs and TCL SVOCs	1013, 1014, 1015, 1237, 1238	Field sample	10/11/2016	10:40
SS-4	MC0AA4	46440-0005	Surface Soil	CLP TAL Total Metals	1016	Field sample	10/11/2016	9:00
SS-4	C0AA4	46440-0005	Surface Soil	CLP TCL VOCs and TCL SVOCs	1017, 1018, 1019, 1239, 1240	Field sample	10/11/2016	9:00
SS-5	MC0AA5	46440-0006	Surface Soil	CLP TAL Total Metals	1020	Field Duplicate of WS-1	10/11/2016	17:05
SS-5	C0AA5	46440-0006	Surface Soil	CLP TCL VOCs and TCL SVOCs	1021, 1022, 1023	Field Duplicate of WS-1	10/11/2016	17:05
WS-2	MC0AB0	46440-0008	Subsurface Soil	CLP TAL Total Metals	1025	Field sample	10/11/2016	16:30
WS-2	C0AB0	46440-0008	Subsurface Soil	CLP TCL VOCs and TCL SVOCs	1026, 1027, 1028	Field sample	10/11/2016	16:30
SB-1	MC0AB1	46440-0009	Subsurface Soil	CLP TAL Total Metals	1029	Field sample/MS/MSD	10/11/2016	14:25
SB-1	C0AB1	46440-0009	Subsurface Soil	CLP TCL VOCs and TCL SVOCs	1030, 1031, 1032	Field sample/MS/MSD	10/11/2016	14:25
SB-2	MC0AB2	46440-0010	Subsurface Soil	CLP TAL Total Metals	1033	Field sample	10/11/2016	12:20
SB-2	C0AB2	46440-0010	Subsurface Soil	CLP TCL VOCs and TCL SVOCs	1034, 1035, 1036	Field sample	10/11/2016	12:20
SB-3	MC0AB3	46440-0011	Subsurface Soil	CLP TAL Total Metals	1037	Field sample	10/11/2016	10:45
SB-3	C0AB3	46440-0011	Subsurface Soil	CLP TCL VOCs and TCL SVOCs	1038, 1039, 1040, 1255, 1256	Field sample	10/11/2016	10:45
SB-4	MC0AB4	46440-0012	Subsurface Soil	CLP TAL Total Metals	1041	Field sample	10/11/2016	9:05
SB-4	C0AB4	46440-0012	Subsurface Soil	CLP TCL VOCs and TCL SVOCs	1042, 1043, 1044, 1257, 1258	Field sample	10/11/2016	9:05
SB-5	MC0AB5	46440-0013	Subsurface Soil	CLP TAL Total Metals	1045	Field Duplicate of WS-2	10/11/2016	17:15
SB-5	C0AB5	46440-0013	Subsurface Soil	CLP TCL VOCs and TCL SVOCs	1046, 1047, 1048	Field Duplicate of WS-2	10/11/2016	17:15

Notes:

MS = Matrix Spike

MSD = Matrix Spike Duplicate

CLP = Contract Laboratory Program

TAL = Target Analyte List

TCL = Target Compound List

VOCs = Volatile Organic Compounds

SVOCs = Semivolatile Organic Compounds

Table 1B - Surface Water and Sediment Sample Collection Summary

St. Albans Trailer Park CERCLIS Site

St. Albans, Kanawha County, West Virginia

Sample ID	CLP Number	Sample Identifier	Matrix	Analysis	Tag Numbers	Sample Type	Date	Time
SW-1	MC0AC0	46440-0015	Surface Water	CLP TAL Total Metals	1050	Field sample	10/25/2016	14:00
SW-1	C0AC0	46440-0015	Surface Water	CLP TCL VOCs and TCL SVOCs	1051, 1052, 1053	Field sample	10/25/2016	14:00
SW-2	MC0AC1	46440-0016	Surface Water	CLP TAL Total Metals	1054	Field sample/MS/MSD	10/25/2016	13:00
SW-2	C0AC1	46440-0016	Surface Water	CLP TCL VOCs and TCL SVOCs	1055, 1056, 1057	Field sample/MS/MSD	10/25/2016	13:00
SW-3	MC0AC2	46440-0017	Surface Water	CLP TAL Total Metals	1058	Field sample	10/25/2016	12:00
SW-3	C0AC2	46440-0017	Surface Water	CLP TCL VOCs and TCL SVOCs	1059, 1060, 1061	Field sample	10/25/2016	12:00
SW-4	MC0AC3	46440-0018	Surface Water	CLP TAL Total Metals	1062	Field sample	10/25/2016	11:00
SW-4	C0AC3	46440-0018	Surface Water	CLP TCL VOCs and TCL SVOCs	1063, 1064, 1065	Field sample	10/25/2016	11:00
SW-5	MC0AC4	46440-0019	Surface Water	CLP TAL Total Metals	1066	Field Duplicate of SW-1	10/25/2016	14:00
SW-5	C0AC4	46440-0019	Surface Water	CLP TCL VOCs and TCL SVOCs	1067, 1068, 1069	Field Duplicate of SW-1	10/25/2016	14:00
SW-6	MC0AC5	46440-0020	Surface Water	CLP TAL Total Metals	1307	Field sample	10/25/2016	17:00
SW-6	C0AC5	46440-0020	Surface Water	CLP TCL VOCs and TCL SVOCs	1070, 1305, 1306	Field sample	10/25/2016	17:00
SD-1	MC0AD0	46440-0021	Sediment	CLP TAL Total Metals	1071	Field sample	10/25/2016	14:30
SD-1	C0AD0	46440-0021	Sediment	CLP TCL VOCs and TCL SVOCs	1072, 1073, 1074	Field sample	10/25/2016	14:30
SD-2	MC0AD1	46440-0022	Sediment	CLP TAL Total Metals	1075	Field sample/MS/MSD	10/25/2016	13:30
SD-2	C0AD1	46440-0022	Sediment	CLP TCL VOCs and TCL SVOCs	1076, 1077, 1078	Field sample/MS/MSD	10/25/2016	13:30
SD-3	MC0AD2	46440-0023	Sediment	CLP TAL Total Metals	1079	Field sample	10/25/2016	12:10
SD-3	C0AD2	46440-0023	Sediment	CLP TCL VOCs and TCL SVOCs	1080, 1081, 1082	Field sample	10/25/2016	12:10
SD-4	MC0AD3	46440-0024	Sediment	CLP TAL Total Metals	1183	Field sample	10/25/2016	11:10
SD-4	C0AD3	46440-0024	Sediment	CLP TCL VOCs and TCL SVOCs	1084, 1085, 1086	Field sample	10/25/2016	11:10
SD-5	MC0AD4	46440-0025	Sediment	CLP TAL Total Metals	1187	Field Duplicate of SD-1	10/25/2016	14:30
SD-5	C0AD4	46440-0025	Sediment	CLP TCL VOCs and TCL SVOCs	1188, 1189, 1190	Field Duplicate of SD-1	10/25/2016	14:30

Notes:

MS = Matrix Spike

MSD = Matrix Spike Duplicate

CLP = Contract Laboratory Program

TAL = Target Analyte List

TCL = Target Compound List

VOCs = Volatile Organic Compounds

SVOCs = Semivolatile Organic Compounds

Table 1C - Groundwater Sample Collection Summary

St. Albans Trailer Park CERCLIS Site

St. Albans, Kanawha County, West Virginia

Sample ID	CLP Number	Sample Identifier	Matrix	Analysis	Tag Numbers	Sample Type	Date	Time
TW-W	C0AF0	46440-0029	Groundwater	CLP TCL VOCs	1201	Field sample	10/25/2016	17:10
TW-1	C0AF1	46440-0030	Groundwater	CLP TCL VOCs and TCL SVOCs	1205, 1206	Field sample	10/25/2016	16:10
TW-2	C0AF2	46440-0031	Groundwater	CLP TCL VOCs and TCL SVOCs	1209, 1210	Field sample	10/25/2016	15:25
TW-3	MC0AF3	46440-0032	Groundwater	CLP TAL Total Metals	1212	Field sample	10/25/2016	13:45
TW-3	C0AF3	46440-0032	Groundwater	CLP TCL VOCs and TCL SVOCs	1213, 1214, 1215	Field sample	10/25/2016	13:45
TW-4	MC0AF4	46440-0033	Groundwater	CLP TAL Total Metals	1216	Field sample/MS/MSD	10/25/2016	11:45
TW-4	C0AF4	46440-0033	Groundwater	CLP TCL VOCs and TCL SVOCs	1217, 1218, 1219	Field sample/MS/MSD	10/25/2016	11:45
TW-5	MC0AF5	46440-0034	Groundwater	CLP TAL Total Metals	1220	Field Duplicate of TW-3	10/25/2016	13:45
TW-5	C0AF5	46440-0034	Groundwater	CLP TCL VOCs and TCL SVOCs	1221, 1222, 1223	Field Duplicate of TW-3	10/25/2016	13:45

Notes:

MS = Matrix Spike

MSD = Matrix Spike Duplicate

CLP = Contract Laboratory Program

TAL = Target Analyte List

TCL = Target Compound List

VOCs = Volatile Organic Compounds

SVOCs = Semivolatile Organic Compounds

Table 1D - Waste Characterization Sample Collection Summary

St. Albans Trailer Park CERCLIS Site

St. Albans, Kanawha County, West Virginia

Sample ID	CLP Number	Sample Identifier	Matrix	Analysis	Tag Numbers	Sample Type	Date	Time
WC-1	MC0AA0	46642-0001	Waste	TCLP Metals	1000	Field sample	1/3/2017	13:30
WC-1	R3504701	46642-0001	Waste	TCLP VOCs and TCLP SVOCs	1001, 1002	Field sample	1/3/2017	13:30
WC-1	R3503801	46642-0001	Waste	Ignitability	1003	Field sample	1/3/2017	13:30

Notes:

CLP = Contract Laboratory Program

TCLP = Toxicity Characteristic Leaching Procedure

VOCs = Volatile Organic Compounds

SVOCs = Semivolatile Organic Compounds

Table 2 - Field Parameters
St. Albans Trailer Park CERCLIS Site
St. Albans, Kanawha County, West Virginia

Sample ID	Date	Time	Depth to Water (feet)	pH	Temperature (C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Latitude	Longitude
TW-W	10/25/2016	17:10	21.25	N/A	N/A	N/A	N/A	N/A	38.39653	-81.85333
TW-1	10/25/2016	16:10	22.33	7.23	17.38	1.64	1.78	-93.3	38.39664	-81.85319
TW-2	10/25/2016	15:25	18.15	N/A	N/A	N/A	N/A	N/A	38.39671	-81.85342
TW-3	10/25/2016	13:45	12.36	6.64	17.36	1.217	0.93	50.2	38.39622	-81.85277
TW-4	10/25/2016	11:45	18.78	7.08	16.78	0.372	0.80	-113.7	38.39616	-81.85305
SW-1	10/25/2016	14:00	N/A	8.58	13.45	0.469	9.92	53.8	38.39716	-80.85354
SW-2	10/25/2016	13:00	N/A	8.53	13.35	0.209	11.25	55.2	38.39701	-81.85285
SW-3	10/25/2016	12:00	N/A	8.50	13.35	0.386	11.79	50.3	38.39660	-81.85247
SW-4	10/25/2016	11:00	N/A	8.17	13.04	0.526	8.93	69.2	38.39678	-81.85285
SW-6	10/25/2016	17:00	N/A	8.58	13.45	0.469	9.92	53.8	38.39690	-81.85305

Notes:

N/A = Not Applicable

mS/cm = milisemens per centimeter

mg/L = milligrams per liter

mV = millivolts

°C = degrees centigrade

Table 3A - Analytical Summary Table – Surface Soil
Inorganics – USEPA Regional Screening Levels (RSLs) for Residential Soil
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 11, 2016

COPC	Analyte Type	CRQL	Concentration mg/kg								Frequency		Concentration		USEPA RSL Residential Soil (mg/kg)	COC ?	Background Concentration (mg/kg)	HRS Observed					
			WS-1	Q	SS-1	Q	SS-2	Q	SS-3	Q	SS-4 (Background)	Q	SS-5 (FD of WS-1)	Q	Detects	Samples	Min (mg/kg)	Max (mg/kg)					
Inorganics																							
Antimony 7440-36-0	Target	1	1.2	U	1.0	U	0.9	U	0.80	U	0.99	U	1.1	U	0	5	ND	ND	31	1	NO	0.99	NO
Arsenic 7440-38-2	Target	0.5	3.9		3.8		3.8		4.9		12.6		4.4		5	5	3.8	12.6	0.68 (13*)	1	NO	12.6	NO
Barium 7440-39-3	Target	5	97.8		93.4		118		81.6		196		86.9		5	5	81.6	196	15,000	1	NO	196	NO
Beryllium 7440-41-7	Target	0.5	0.89		0.89		0.95		0.76		1.4		0.82		5	5	0.76	1.4	160	1	NO	1.4	NO
Cadmium 7440-43-9	Target	0.5	0.25	J	0.20	J	0.18	J	0.26	J	0.32	J	0.31	J	5	5	0.18	0.34	71	1	NO	0.32	NO
Chromium 7440-47-3	Target	1	11.8		15.0		14.5		13.7		26		13.8		5	5	11.8	26.0	NA		NO	26	NO
Cobalt 7440-48-4	Target	0.5	10.5		11.5		11.4		10.8		18.1		9.0		5	5	9.0	18.1	23	1	NO	18.1	NO
Copper 7440-50-8	Target	1	27.3		36.7		20.8		66.8		31		36.0		5	5	20.8	66.8	3,100	1	NO	31	NO
Lead 7439-92-1	Target	0.5	162		27.8		25.3		34.2		32.4		175		5	5	25.3	175	400	1	NO	32.4	YES
Manganese 7439-96-5	Target	0.5	524	J	663	J	539	J	583	J	1300	J	597	J	5	5	524	1300	NA		NO	1300	NO
Nickel 7440-02-0	Target	0.5	18.9		19.7		17.6		17.4		30		19.1		5	5	17.4	30.0	1,500	1	NO	30	NO
Selenium 7782-49-2	Target	2.5	3.0	U	2.6	U	2.2	U	2	U	2.5	U	2.7	U	0	5	ND	ND	390	1	NO	2.5	NO
Silver 7440-22-4	Target	0.5	0.61	U	0.52	U	0.44	U	0.4	U	0.5	U	0.55	U	0	5	ND	ND	390	1	NO	0.5	NO
Thallium 7440-28-0	Target	0.5	0.61	U	0.11	J	0.11	J	0.091	J	0.17	J	0.55	U	3	5	0.091	0.091	0.78	1	NO	0.17	NO
Vanadium 7440-62-2	Target	2.5	15.4		21.2		19.3		16.3		26.6		15.6		5	5	15.4	26.6	390	1	NO	26.6	NO
Zinc 7440-66-6	Target	1	104		77.9	J	79.2		82.6		98.7		163		5	5	79.2	163	23,000	1	NO	98.7	NO

NOTES:

COPC: Contaminant of Potential Concern

CRQL: Contract Required Quantitation Limit

mg/kg: Milligrams per kilogram

USEPA RSL: United States Environmental Protection Agency Regional Screening Level

* West Virginia Natural Background Standard

ND: Not detected at a concentration greater than the CRQL

NA: Not Applicable or available

COC: Compound or analyte concentration above the action limit

HRS Observed Release: Compound or analyte concentration >3X BG concentration.

1: USEPA Regional Screening Levels (RSLs) for Residential Soil (May 2016)

Q: Qualifier

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 3B - Analytical Summary Table – Surface Soil SVOCs – USEPA Regional Screening Levels (RSLs) for Residential Soil St. Albans, Kanawha County, West Virginia Sample Date: October 11, 2016																								
COPC	Analyte Type	CRQL	Concentration ug/kg										Frequency		Concentration		USEPA RSL Residential Soil (ug/kg)	COC ?	Background Concentration (mg/kg)	HRS Observed				
			WS-1	Q	SS-1	Q	SS-2	Q	SS-3	Q	SS-4 (Back ground)	Q	SS-5 (FD of WS-1)	Q	Detects	Samples	Min (ug/kg)	Max (ug/kg)						
Semi-Volatile Organic Compounds																								
1,4-Dioxane 123-91-1	Target	67	93	UJ	78	UJ	74	UJ	72	UJ	76	UJ	85	UJ	0	5	ND	ND	5,300	1	NO	76	NO	
Benzaldehyde 100-52-7	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	170,000	1	NO	380	NO	
Phenol 108-95-2	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	19,000,000	1	NO	380	NO	
Bis(2-chloroethyl) ether 111-44-4	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	230	1	NO	380	NO	
2-Chlorophenol 95-57-8	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	390,000	1	NO	190	NO	
2-Methylphenol 95-48-7	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	3,200,000	1	NO	380	NO	
2,2'-Oxybis(1-chloropropane) 108-60-1	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	3,100,000	1	NO	380	NO	
Acetophenone 98-86-2	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	7,800,000	1	NO	380	NO	
4-Methylphenol 106-44-5	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	6,300,000	1	NO	380	NO	
N-Nitroso-di-n propylamine 621-64-7	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	78	1	NO	190	NO	
Hexachloroethane 67-72-1	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	1,800	1	NO	190	NO	
Nitrobenzene 98-95-3	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	5,100	1	NO	190	NO	
Isophorone 78-59-1	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	570,000	1	NO	190	NO	
2-Nitrophenol 88-75-5	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	NA	1	NO	190	NO	
2,4-Dimethylphenol 105-67-9	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	1,300,000	1	NO	190	NO	
Bis(2-chloroethoxy)methane 111-91-1	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	190,000	1	NO	190	NO	
2,4-Dichlorophenol 120-83-2	Target	170	230	J	190	U	190	U	180	U	190	U	210	U	1	5	230	230	190,000	1	NO	190	NO	
Naphthalene 91-20-3 (SIM)	Target	3.3	4.6	U	3.8	U	9.8	U	3.5	U	3.7	U	4.2	U	1	5	9.8	9.8	3,800	1	NO	3.7	NO	
4-Chloroaniline 106-47-8	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	2,700	1	NO	380	NO	
Hexachlorobutadiene 87-63	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	1,200	1	NO	190	NO	
Caprolactam 105-60-2	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	31,000,000	1	NO	380	NO	
4-Chloro-3-methylphenol 59-50-7	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	6,300,000	1	NO	190	NO	
2-Methylnaphthalene 91-57-6 (SIM)	Target	3.3	2.9	J	3.8	U	13		2.5	J	3.7	U	4.2	U	3	5	2.5	13	240,000	1	NO	3.7	NO	
Hexachlorocyclo-pentadecane 77-47-4	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	1,800	1	NO	380	NO	
2,4,6-Trichlorophenol 88-06-2	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	49,000	1	NO	190	NO	
2,4,5-Trichlorophenol 95-95-4	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	6,300,000	1	NO	190	NO	
1,1'-Biphenyl 92-52-4	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	47,000	1	NO	190	NO	
2-Chloronaphthalene 91-58-7	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	4,800,000	1	NO	190	NO	
2-Nitroaniline 88-74-4	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	630,000	1	NO	190	NO	
Dimethylphthalate 131-11-3	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	NA	1	NO	190	NO	
2,6-Dinitrotoluene 606-20-2	Target	170	230	U	190	U	190	U	180	U	190	U	210	U	0	5	ND	ND	360	1	NO	190	NO	
Acenaphthylene 208-96-8 (SIM)	Target	3.3	2.5	J	3.0	U	8.6		3.1	J	3.1	U	1.8	J	5	5	1.8	8.6	NA	1	NO	3.1	NO	
3-Nitroaniline 99-09-2	Target	330	470	U	390	U	370	U	360	U	380	U	420	U	0	5	ND	ND	NA	1	NO	380	NO	
Acenaphthene 83-32-9 (SIM)	Target	3.3	4.6	U	3.8	U	3.7	U	3.5	U	3.7	U	4.2	U	0	5	ND	ND	3,600,000	1	NO</td			

Table 3C - Analytical Summary Table – Surface Soil
VOCs – USEPA Regional Screening Levels (RSLs) for Residential Soil
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 11, 2016

COPC	Analyte Type	CRQL	Concentration (ug/kg)								Frequency		Concentration		USEPA RSL Residential Soil (ug/kg)	COC ?	Background Concentration (ug/kg)	HRS Observed					
			WS-1	Q	SS-1	Q	SS-2	Q	SS-3	Q	SS-4 (Background)	Q	SS-5 (FD of WS-1)	Q	Detects	Samples	Min (ug/kg)	Max (ug/kg)					
Volatile Organic Compounds																							
Dichlorodifluoromethane 75-71-8	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	87,000	1	NO	4.9	NO
Chloromethane 74-87-3	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	110,000	1	NO	4.9	NO
Vinyl chloride 75-01-4	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	59	1	NO	4.9	NO
Bromomethane 74-83-9	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	6,800	1	NO	4.9	NO
Chloroethane 75-00-3	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	14,000,000	1	NO	4.9	NO
Trichlorofluoromethane 75-69-4	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	23,000,000	1	NO	4.9	NO
1,1-Dichloroethene 75-35-4	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	230,000	1	NO	4.9	NO
1,1,2-Trichloro-1,2,2-trifluoroethane 76-13-1	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	40,000,000	1	NO	4.9	NO
Acetone 67-64-1	Target	10.0	1,600	U	3.7	J	9.9	U	9.3	U	9.9	U	1,500	U	1	5	3.7	3.7	61,000,000	1	NO	9.9	NO
Carbon disulfide 75-15-0	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	770,000	1	NO	4.9	NO
Methyl acetate 79-20-9	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	78,000,000	1	NO	4.9	NO
Methylene chloride 75-09-2	Target	5.0	810	U	0.14	J	1.3	J	0.85	J	1.4	J+	760	U	3	5	0.9	1.3	57,000	1	NO	1.4	NO
trans-1,2-Dichloroethene 156-60-5	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	1,600,000	1	NO	4.9	NO
Methyl tert-butyl ether 1634-04-4	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	47,000	1	NO	4.9	NO
1,1-Dichloroethane 75-34-3	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	3,600	1	NO	4.9	NO
cis-1,2-Dichloroethene 156-59-2	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	160,000	1	NO	4.9	NO
2-Butanone 78-93-3	Target	10.0	1,600	U	8.5	U	9.9	U	9.3	U	9.9	U	1,500	U	0	5	ND	ND	27,000,000	1	NO	10	NO
Bromoform 74-97-5	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	150,000	1	NO	4.9	NO
Chloroform 67-66-3	Target	5.0	810	U	4.30	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	320	1	NO	4.9	NO
1,1,1-Trichloroethane 71-55-6	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	8,100,000	1	NO	4.9	NO
Cyclohexane 110-82-7	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	0.51	J	760	U	0	5	ND	ND	6,500,000	1	NO	0.5	NO
Carbon tetrachloride 56-23-5	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	650	1	NO	4.9	NO
Benzene 71-43-2	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	1,200	1	NO	4.9	NO
1,2-Dichloroethene 107-06-2	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	460	1	NO	4.9	NO
Trichloroethene 79-01-6	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	940	1	NO	4.9	NO
Methylcyclohexane 108-87-2	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	NA	1	NO	4.9	NO
1,2-Dichloropropane 78-87-5	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	1,000	1	NO	4.9	NO
Bromodichloromethane 75-27-4	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	290	1	NO	4.9	NO
cis-1,3-Dichloropropene 10061-01-5	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	NA	1	NO	4.9	NO
4-Methyl-2-pentanone 108-10-1	Target	10.0	1,600	U	8.5	U	9.9	U	9.3	U	9.9	U	1,500	U	0	5	ND	ND	33,000,000	1	NO	10	NO
Toluene 108-88-3	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	4,900,000	1	NO	0.4	NO
trans-1,3-Dichloropropene 10061-02-6	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	NA	1	NO	4.9	NO
1,1,2-Trichloroethane 79-00-5	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	1,100	1	NO	4.9	NO
Tetrachloroethene 127-18-4	Target	5.0	810	U	4.3	U	4.9	U	4.7	U	4.9	U	760	U	0	5	ND	ND	24,000	1	NO	4.9	NO
2-Hexanone 591-78-6	Target	10.0	1,600	U	8.5	U	9.9	U	9.3	U	9.9	U	1,500	U	0	5	ND	ND	200,000	1	NO	10	NO
Dibromochloromethane 124-48-1	Target	5.0	810	U	4.3	U	4.9	U</															

Table 4A - Analytical Summary Table – Subsurface Soil
Inorganics – USEPA Regional Screening Levels (RSLs) for Residential Soil
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 11, 2016

COPC	Analyte Type	CRQL	Concentration mg/kg							Frequency		Concentration		USEPA RSL Residential Soil (mg/kg)	COC ?	Background Concentration (mg/kg)	HRS Observed	Release?					
			WS-2	Q	SB-1	Q	SB-2	Q	SB-3	Q	SB-4 (Background)	Q	SB-5 (FD of WS-2)	Q	Detects	Samples	Min (mg/kg)	Max (mg/kg)					
Inorganics																							
Antimony 7440-36-0	Target	1	0.83	U	1.2	U	1.0	U	1.5		1.0	U	0.88	U	1	5	1.5	1.5	31	1	NO	1.0	NO
Arsenic 7440-38-2	Target	0.5	1.3		3.7		3.4		7		5.6		1.1		5	5	1.1	7.0	0.68 (13*)	1	NO	5.6	NO
Barium 7440-39-3	Target	5	72.1		117		150		229		175		84.5		5	5	72.1	229	15,000	1	NO	175	NO
Beryllium 7440-41-7	Target	0.5	0.95		1.1		1.1		0.88		1.3		0.85		5	5	0.85	1.3	160	1	NO	1.3	NO
Cadmium 7440-43-9	Target	0.5	0.30	J	0.32	J	0.34	J	3.1		0.45	J	0.27	J	5	5	0.3	3.1	71	1	NO	0.45	YES
Chromium 7440-47-3	Target	1	8.4		13.8		15.7		44.5		23.7		6.4		5	5	6.4	44.5	NA		NO	23.7	NO
Cobalt 7440-48-4	Target	0.5	5.0		12.0		14.6		14.4		17.6		4.9		5	5	4.9	17.6	23	1	NO	17.6	NO
Copper 7440-50-8	Target	1	33.0		31.3		29.1		227		35.8		36.3		5	5	29.1	227	3,100	1	NO	35.8	YES
Lead 7439-92-1	Target	0.5	10.4		32.4		21.4		284		20.3		9.6		5	5	9.6	284.0	400	1	NO	20.3	YES
Manganese 7439-96-5	Target	0.5	618	J	670	J	864	J	842	J	1090	J	614	J	5	5	614.0	1090	NA		NO	1090	NO
Nickel 7440-02-0	Target	0.5	22.6		27.3		25.8		55.3		34.9		22.0		5	5	22.0	55.3	1,500	1	NO	34.9	NO
Selenium 7782-49-2	Target	2.5	2.1	U	3.0	U	2.6	U	2.7	U	2.6	U	2.2	U	0	5	ND	ND	390	1	NO	2.6	NO
Silver 7440-22-4	Target	0.5	0.42	U	0.6	U	0.1	J	0.47	J	0.5	U	0.44	U	2	5	0.1	0.6	390	1	NO	0.5	NO
Thallium 7440-28-0	Target	0.5	0.42	U	0.6	U	0.1	J	0.12	J	0.1	J	0.44	U	2	5	0.1	0.6	0.78	1	NO	0.1	YES
Vanadium 7440-62-2	Target	2.5	10.6		19.0		25.6		38.4		23.7		8.3		5	5	8.3	38.4	390	1	NO	23.7	NO
Zinc 7440-66-6	Target	1	18.1		70.1		71.0		4,390		90.6		17.4		5	5	17.4	4,390	23,000	1	NO	90.6	YES

NOTES:

COPC: Contaminant of Potential Concern

CRQL: Contract Required Quantitation Limit

mg/kg: Milligrams per kilogram

USEPA RSL: United States Environmental Protection Agency Regional Screening Level

* West Virginia Natural Background Standard

ND: Not detected at a concentration greater than the CRQL

NA: Not Applicable or available

COC: Compound or analyte concentration above the action limit

HRS Observed Release: Compound or analyte concentration >3X BG concentration.

1: USEPA Regional Screening Levels (RSLs) for Residential Soil (May 2016)

Q: Qualifier

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 4B - Analytical Summary Table – Subsurface Soil
SVOCs – USEPA Regional Screening Levels (RSLs) for Residential Soil
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 11, 2016

COPC	Analyte Type	CRQL	Concentration (µg/kg)								Frequency		Concentration		USEPA RSL Residential Soil (µg/kg)	COC ?	Background Concentration (µg/kg)	HRS Observed Release?					
			WS-2	Q	SB-1	Q	SB-2	Q	SB-3	Q	SB-4 (Background)	Q	SB-5 (FD of WS-2)	Q	Detects	Samples	Min (µg/kg)	Max (µg/kg)					
Semi-Volatile Organic Compounds																							
1,4-Dioxane 123-91-1	Target	67	74	UJ	81	UJ	80	UJ	76	UJ	74	UJ	73	UJ	0	5	ND	ND	5,300	1	NO	74	NO
Benzaldehyde 100-52-7	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	170,000	1	NO	370	NO
Phenol 108-95-2	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	19,000,000	1	NO	370	NO
Bis(2-chloroethyl) ether 111-44-4	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	230	1	NO	370	NO
2-Chlorophenol 95-57-8	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	390,000	1	NO	180	NO
2-Methylphenol 95-48-7	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	3,200,000	1	NO	370	NO
2,2'-Oxybis(1-chloropropane) 108-60-1	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	3,100,000	1	NO	370	NO
Acetophenone 98-86-2	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	7,800,000	1	NO	370	NO
4-Methylphenol 106-44-5	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	6,300,000	1	NO	370	NO
N-Nitroso-di-n propylamine 621-64-7	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	78	1	NO	180	NO
Hexachloroethane 67-72-1	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	1,800	1	NO	180	NO
Nitrobenzene 98-95-3	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	5,100	1	NO	180	NO
Isophorone 78-59-1	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	570,000	1	NO	180	NO
2-Nitrophenol 88-75-5	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	NA		NO	180	NO
2,4-Dimethylphenol 105-67-9	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	1,300,000	1	NO	180	NO
Bis(2-chloroethoxy)methane 111-91-1	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	190,000	1	NO	180	NO
2,4-Dichlorophenol 126-83-2	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	190,000	1	NO	180	NO
Naphthalene 91-20-3 (SIM)	Target	3.3	3.7	U	4	U	4.0	U	3.8	U	3.7	U	3.6	U	0	5	ND	ND	3,800	1	NO	3.7	NO
4-Chloroaniline 106-47-8	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	2,700	1	NO	370	NO
Hexachlorobutadiene 87-68-3	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	1,200	1	NO	180	NO
Caprolactam 105-60-2	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	31,000,000	1	NO	370	NO
4-Chloro-3-methylphenol 59-50-7	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	6,300,000	1	NO	180	NO
2-Methylnaphthalene 91-57-6 (SIM)	Target	3.3	3.7	U	4	U	4.0	U	2.2	J	3.7	U	3.6	U	1	5	2.2	2.2	240,000	1	NO	3.7	NO
Hexachlorocyclo-pentadiene 77-47-4	Target	330	370	UJ	410	UJ	400	UJ	380	UJ	370	UJ	360	UJ	0	5	ND	ND	1,800	1	NO	370	NO
2,4,6-Trichlorophenol 88-06-2	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	49,000	1	NO	180	NO
2,4,5-Trichlorophenol 95-95-4	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	6,300,000	1	NO	180	NO
1,1'-Biphenyl 92-52-4	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	47,000	1	NO	180	NO
2-Chloronaphthalene 91-58-7	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	4,800,000	1	NO	180	NO
2-Nitroaniline 88-74-4	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	630,000	1	NO	180	NO
Dimethylphthalate 131-11-3	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	NA		NO	180	NO
2,6-Dinitrotoluene 606-20-2	Target	170	190	U	200	U	200	U	190	U	180	U	180	U	0	5	ND	ND	360	1	NO	180	NO
Acenaphthylene 208-96-8 (SIM)	Target	3.3	3.7	U	4	U	1.7	J	7.7		3.7	U	3.6	U	2	5	1.7	7.7	NA		NO	3.7	NO
3-Nitroaniline 99-09-2	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	NA		NO	370	NO
Acenaphthene 83-32-9 (SIM)	Target	3.3	3.7	U	4	U	4.0	U	2.9	J	3.7	U	3.6	U	1	5	2.9	2.9	3,600,000	1	NO	3.7	NO
2,4-Dinitrophenol 51-28-5	Target	330	370	U	410	U	400	U	380	U	370	U	360	U	0	5	ND	ND	130,000	1	NO	370	NO
4-Nitrophenol 100-02-7	Target	330	370	U	410	U	400	U	380	U	370</												

Table 4C - Analytical Summary Table – Subsurface Soil
VOCs – USEPA Regional Screening Levels (RSLs) for Residential Soil
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 11, 2016

COPC	Analyte Type	CRQL	Concentration ($\mu\text{g}/\text{kg}$)								Frequency		Concentration		USEPA RSL Residential Soil ($\mu\text{g}/\text{kg}$)	COC ?	Background Concentration ($\mu\text{g}/\text{kg}$)	HRS Observed	Release?				
			WS-2	Q	SB-1	Q	SB-2	Q	SB-3	Q	SB-4 (Background)	Q	SB-5 (FD of WS-2)	Q	Detects	Samples	Min ($\mu\text{g}/\text{kg}$)	Max ($\mu\text{g}/\text{kg}$)					
Volatile Organic Compounds																							
Dichlorodifluoromethane 75-71-8	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	87,000	1	NO	4.4	NO
Chloromethane 74-87-3	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	110,000	1	NO	4.4	NO
Vinyl chloride 75-01-4	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	59	1	NO	4.4	NO
Bromomethane 74-83-9	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	6,800	1	NO	4.4	NO
Chloroethane 75-00-3	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	14,000,000	1	NO	4.4	NO
Trichlorodifluoromethane 75-69-4	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	23,000,000	1	NO	4.4	NO
1,1-Dichloroethene 75-35-4	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	230,000	1	NO	4.4	NO
1,1,2-Trichloro-1,2,2-trifluoroethane 76-13-1	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	40,000,000	1	NO	4.4	NO
Acetone 67-64-1	Target	10.0	13.0		27.0		14.0		11.0		8.8	U	18.0		5	5	11.0	27.0	61,000,000	1	NO	8.8	YES
Carbon disulfide 75-15-0	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	770,000	1	NO	4.4	NO
Methyl acetate 79-20-9	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	78,000,000	1	NO	4.4	NO
Methylene chloride 75-09-2	Target	5.0	0.22	J	5.5	U	0.22	J	4.5	U	0.27	J	0.46	J	3	5	0.22	0.46	57,000	1	NO	0.27	NO
trans-1,2-Dichloroethene 156-60-5	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	1,600,000	1	NO	4.4	NO
Methyl tert-butyl ether 1634-04-4	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	47,000	1	NO	4.4	NO
1,1-Dichloroethane 75-34-3	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	3,600	1	NO	4.4	NO
cis-1,2-Dichloroethene 156-59-2	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	160,000	1	NO	4.4	NO
2-Butanone 78-93-3	Target	10.0	8.9	U	6.1	J	12.0	U	9	U	8.8	U	9.1	U	1	5	6.1	6.1	27,000,000	1	NO	8.8	NO
Bromochloromethane 74-97-5	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	150,000	1	NO	4.4	NO
Chloroform 67-66-3	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	320	1	NO	4.4	NO
1,1,1-Trichloroethane 71-55-6	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	8,100,000	1	NO	4.4	NO
Cyclohexane 110-82-7	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	6,500,000	1	NO	4.4	NO
Carbon tetrachloride 56-23-5	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	650	1	NO	4.4	NO
Benzene 71-43-2	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	1,200	1	NO	4.4	NO
1,2-Dichloroethane 107-06-2	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	460	1	NO	4.4	NO
Trichloroethene 79-01-6	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	940	1	NO	4.4	NO
Methylcyclohexane 108-87-2	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	NA	1	NO	4.4	NO
1,2-Dichloropropane 78-87-5	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	1,000	1	NO	4.4	NO
Bromodichloromethane 75-27-4	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	290	1	NO	4.4	NO
cis-1,3-Dichloropropene 10061-01-5	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	NA	1	NO	4.4	NO
4-Methyl-2-pentanone 108-10-1	Target	10.0	8.9	U	11	U	12.0	U	9	U	8.8	U	9.1	U	0	5	ND	ND	33,000,000	1	NO	8.8	NO
Toluene 108-88-3	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	4,900,000	1	NO	4.4	NO
trans-1,3-Dichloropropene 10061-02-6	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	NA	1	NO	4.4	NO
1,1,2-Trichloroethane 79-00-5	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	1,100	1	NO	4.4	NO
Tetrachloroethene 127-18-4	Target	5.0	4.5	U	5.5	U	5.8	U	4.5	U	4.4	U	4.6	U	0	5	ND	ND	24,000	1	NO	4.4	NO
2-Hexanone 591-78-6	Target	10.0	8.9	U	11	U	12	U	9	U	8.8												

Table 5A - Analytical Summary Table – Groundwater
Inorganics – USEPA Regional Screening Levels (RSLs) for Tapwater
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/L)							Frequency		Concentration		Action Level Concentration (ug/L)		COC ?	Background Concentration (ug/L)	HRS Observed Release?					
			TW-W	Q	TW-1	Q	TW-2	Q	TW-3	Q	TW-4 (Background)	Q	TW-5 (FD of TW-3)	Q	Detects	Samples	Min (ug/L)	Max (ug/L)					
Inorganics																							
Aluminum 7429-90-5	Target	20	NM		NM		NM		49.1		20.0	U	27.7		2	2	27.7	49.1	20,000	1	NO	20	NO
Antimony 7440-36-0	Target	2	NM		NM		NM		2.0	U	2.0	U	2.0	U	0	2	ND	ND	7.80	1	NO	2	NO
Arsenic 7440-38-2	Target	1	NM		NM		NM		1.0	U	25.0		0.47	J	1	2	0.47	0.47	0.052	1	YES	25	NO
Barium 7440-39-3	Target	10	NM		NM		NM		104		1,450		108		2	2	104	108	3,800	1	NO	1,450	NO
Beryllium 7440-41-7	Target	1	NM		NM		NM		1.0	U	1.0	U	1.0	U	0	2	ND	ND	25	1	NO	1	NO
Cadmium 7440-43-9	Target	1	NM		NM		NM		1.0	U	1.0	U	1.0	U	0	2	ND	ND	9.2	1	NO	1	NO
Calcium 7440-70-2	Target	500	NM		NM		NM		161,000		42,500		164,000		2	2	161,000	164,000	NA		NO	42,500	YES
Chromium 7440-47-3	Target	2	NM		NM		NM		0.46	J	2.0	U	0.36	J	2	2	0.36	0.46	NA		NO	2	NO
Cobalt 7440-48-4	Target	1	NM		NM		NM		0.5	J	0.2	J	0.5	J	2	2	0.5	0.5	6	1	NO	0.2	NO
Copper 7440-50-8	Target	2	NM		NM		NM		2.8		0.5	J	2.9		2	2	2.8	2.9	800	1	NO	0.5	YES
Iron 7439-89-6	Target	200	NM		NM		NM		200	U	21,700		200	U	0	2	ND	ND	14,000	1	NO	21,700	NO
Lead 7439-92-1	Target	1	NM		NM		NM		1.0	U	1.0	U	1.0	U	0	2	ND	ND	15	1	NO	1	NO
Magnesium 7439-95-4	Target	500	NM		NM		NM		30,600		7,410		31,000		2	2	30,600	31,000	NA		NO	7,410	YES
Manganese 7439-96-5	Target	1	NM		NM		NM		942		2,710		953		2	2	942	953	430	1	YES	2,710	NO
Nickel 7440-02-0	Target	1	NM		NM		NM		1.4		1.0	U	1.4		2	2	1.4	1.4	390	1	NO	1	NO
Potassium 7440-09-7	Target	500	NM		NM		NM		4,330		730		4,530		2	2	4330	4,530	NA		NO	730	YES
Selenium 7782-49-2	Target	5	NM		NM		NM		5.0	U	5.0	U	5.0	U	0	2	ND	ND	100	1	NO	5	NO
Silver 7440-22-4	Target	1	NM		NM		NM		1.0	U	1.0	U	1.0	U	0	2	ND	ND	94	1	NO	1	NO
Sodium 7440-23-5	Target	500	NM		NM		NM		41,100		11,100		42,000		2	2	41,100	42,000	NA		NO	11,100	YES
Thallium 7440-28-0	Target	1	NM		NM		NM		1.0	U	1.0	U	1.0	U	0	2	ND	ND	0.2	1	NO	1	NO
Vanadium 7440-62-2	Target	5	NM		NM		NM		5.0	U	5.0	U	5.0	U	0	2	ND	ND	86	1	NO	5	NO
Zinc 7440-66-6	Target	2	NM		NM		NM		8.4		2.1		5.8		2	2	5.8	8.4	6,000	1	NO	2.1	YES

NOTES:

CRQL: Contract Required Quantitation Limit

ug/L: Micrograms per liter

USEPA RSL: United States Environmental Protection Agency Regional Screening Level

NM: Not Measured

ND: Not detected at a concentration greater than the CRQL

NA: Not Applicable or available

COPC: Contaminant of Potential Concern

COC: Compound or analyte concentration above the action limit

HRS Observed Release: Compound or analyte concentration >3X BG concentration.

1: USEPA Regional Screening Levels (RSLs) for Tapwater (May 2016)

2: WV De Minimis Standards for Groundwater (June 2014)

Q: Qualifier

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 5B - Analytical Summary Table – Groundwater SVOCs – USEPA Regional Screening Levels (RSLs) for Tapwater St. Albans Trailer Park St. Albans, Kanawha County, West Virginia Sample Date: October 25, 2016																								
COPC	Analyte Type	CRQL	Concentration (ug/L)										Frequency		Concentration		Action Level Concentration (ug/L)	COC ?	Background Concentration (ug/L)	HRS Observed Release?				
			Semi-Volatile Organic Compounds										Detects	Samples	Min (ug/L)	Max (ug/L)								
			TW-W	Q	TW-1	Q	TW-2	Q	TW-3	Q	TW-4 (Background)	Q	TW-5 (FD of TW-3)	Q	Detects	Samples								
1,4-Dioxane 123-91-1 (SIM)	Target	0.2	NM	1	U	1.3	U	0.2	U	0.2	UJ	0.2	U	0	4	ND	ND	0.46	1	NO	0.2	NO		
Benzaldehyde 100-52-7	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	19	1	NO	5.0	NO		
Phenol 108-95-2	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	5,800	1	NO	5.0	NO		
Bis(2-chloroethyl) ether 111-44-4	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.014	1	NO	5.0	NO		
2-Chlorophenol 95-57-8	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	91	1	NO	2.5	NO		
2-Methylphenol 95-48-7	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	UJ	5.0	U	0	4	ND	ND	930	1	NO	5.0	NO		
2,2'-Oxybis(1-chloropropane) 108-60-1	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	710	1	NO	5.0	NO		
Acetophenone 98-86-2	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	1,900	1	NO	5.0	NO		
4-Methylphenol 106-44-5	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	UJ	5.0	U	0	4	ND	ND	1,900	1	NO	5.0	NO		
N-Nitroso-di-n-propylamine 621-64-7	Target	5	NM	2.1	U	2.5	U	2.0	U	2.0	U	2.0	U	0	4	ND	ND	0.011	1	NO	2.0	NO		
Hexachloroethane 67-72-1	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	0.33	1	NO	2.5	NO		
Nitrobenzene 98-95-3	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	0.14	1	NO	2.5	NO		
Isophorone 78-59-1	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	78	1	NO	2.5	NO		
2-Nitrophenol 88-75-5	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA		NO	2.5	NO		
2,4-Dimethylphenol 105-67-9 (SIM)	Target	0.3	NM	1.0	R	1.3	R	0.3	R	0.3	R	0.3	R	0	4	ND	ND	360	1	NO	0.3	NO		
Bis(2-chloroethoxy)methane 111-91-1	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	59	1	NO	2.5	NO		
2,4-Dichlorophenol 120-83-2	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	46	1	NO	2.5	NO		
Naphthalene 91-20-3	Target	0.1	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	0.17	1	NO	2.5	NO		
4-Chloroaniline 106-47-8	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.37	1	NO	5.0	NO		
Hexachlorobutadiene 87-68-3 (SIM)	Target	1	NM	1.0	R	1.3	R	1.0	R	1.0	R	1.0	R	0	4	ND	ND	0.14	1	NO	1.0	NO		
Caprolactam 105-60-2	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	9,900	1	NO	5.0	NO		
4-Chloro-3-methylphenol 59-50-7	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	1,400	1	NO	2.5	NO		
2-Methylnaphthalene 91-57-6	Target	0.1	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	36	1	NO	2.5	NO		
Hexachlorocyclopentadiene 77-47-4	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.41	1	NO	5.0	NO		
2,4,6-Trichlorophenol 88-06-2	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	4.1	1	NO	2.5	NO		
2,4,5-Trichlorophenol 95-95-4	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	1,200	1	NO	2.5	NO		
1,1'-Biphenyl 92-52-4	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	0.83	1	NO	2.5	NO		
2-Chloronaphthalene 91-58-7 (SIM)	Target	0.3	NM	1.0	R	1.3	R	0.3	U	0.3	U	0.3	U	0	4	ND	ND	750	1	NO	0.3	NO		
2-Nitroaniline 88-74-4	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	190	1	NO	2.5	NO		
Dimethylphthalate 131-11-3	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA		NO	2.5	NO		
2,6-Dinitrotoluene 606-20-2	Target	5	NM	1.0	R	1.3	R	1.0	R	1.0	R	1.0	R	0	4	ND	ND	0.049	1	NO	1.0	NO		
Acenaphthylene 208-96-8	Target	0.1	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	300	2	NO	2.5	NO		
3-Nitroaniline 99-09-2	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA		NO	5.0	NO		
Acenaphthene 83-32-9	Target	0.1	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	530	1	NO	2.5	NO		
2,4-Dinitrophenol 51-28-5	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	39	1	NO	5.0	NO		
4-Nitrophenol 100-00-7	Target	10	NM	5.2	U	6.3	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA		NO	5.0	NO		
Dibenzofuran 132-64-9	Target	5	NM	2.6	U	3.2	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	7.9	1	NO	2.5	NO		
2,4-Dinitrotoluene 121-14-2</td																								

Table 5C - Analytical Summary Table – Groundwater
VOCs – USEPA Regional Screening Levels (RSLs) for Tapwater
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/L)							Frequency		Concentration		Action Level Concentration (ug/L)	COC ?	Background Concentration (ug/L)	HRS Observed	
			TW-W	Q	TW-1	Q	TW-2	Q	TW-3	Q	TW-4 (Background)	Q	TW-5 (FD of TW-3)	Q	Detects	Samples	Min (ug/L)	Max (ug/L)
Volatile Organic Compounds																		
Dichlorodifluoromethane 75-71-8	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Chloromethane 74-87-3	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Vinyl chloride 75-01-4	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Bromomethane 74-83-9	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Chloroethane 75-00-3	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Trichlorofluoromethane 75-69-4	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,1-Dichloroethene 75-35-4	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane 76-13-1	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Acetone 67-64-1	Target	10	7.4	J	6.2	J	8.2	J	10	U	10	U	10	U	3	5	6.2	8.2
Carbon disulfide 75-15-0	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Methyl acetate 79-20-9	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Methylene chloride 75-09-2	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
trans-1,2-Dichloroethene 156-60-5	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Methyl tert-butyl ether 1634-04-4	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,1-Dichloroethane 75-34-3	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
cis-1,2-Dichloroethene 156-59-2	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
2-Butanone 78-93-3	Target	10	10	U	10	U	10	U	10	U	10	U	10	U	0	5	ND	ND
Bromoform 74-97-5	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Chloroform 67-66-3	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,1,1-Trichloroethane 71-55-6	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Cyclohexane 110-82-7	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Carbon tetrachloride 56-23-5	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Benzene 71-43-2	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,2-Dichloroethane 107-06-2	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Trichloroethene 79-01-6	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Methylcyclohexane 108-87-2	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,2-Dichloropropane 78-87-5	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Bromodichloromethane 75-27-4	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
cis-1,3-Dichloropropene 10061-01-5	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	NA
4-Methyl-2-pentanone 108-10-1	Target	10	10	U	10	U	10	U	10	U	10	U	10	U	0	5	ND	ND
Toluene 108-88-3	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
trans-1,3-Dichloropropene 10061-02-6	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	NA
1,1,2-Trichloroethane 79-00-5	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Tetrachloroethene 127-18-4	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
2-Hexanone 591-78-6	Target	10	10	U	10	U	10	U	10	U	10	U	10	U	0	5	ND	ND
Dibromochloromethane 124-48-1	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,2-Dibromoethane 106-93-4	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Chlorobenzene 108-90-7	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Ethylbenzene 100-41-4	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
o-Xylene 95-47-6	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
m,p-Xylene 179601-23-1	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Styrene 100-42-5	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Bromoform 75-25-2	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
Isopropylbenzene 98-82-8	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,1,2-Tetrachloroethane 79-34-5	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	5	ND	ND
1,3-Dichlorobenzene 541-73-1	Target	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0</							

Table 6A - Analytical Summary Table – Surface Water
Inorganics – USEPA Regional Screening Levels (RSLs) for Tapwater
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/L)						Frequency		Concentration		Action Level Concentration (ug/L)	COC ?	Background Concentration (ug/L)	HRS Observed Release?		
			SW-1 (Background)	Q	SW-2	Q	SW-3	Q	SW-4	Q	SW-5 (FD of SW-1)	Q	SW-6	Q	Detects	Samples	Min (ug/L)	Max (ug/L)
Inorganics																		
Aluminum 7429-90-5	Target	20	128		26.7		146		18.0	J	116		54.2		4	4	18	146
Antimony 7440-36-0	Target	2	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0	4	ND	ND
Arsenic 7440-38-2	Target	1	0.64	J	0.54	J	1.4		1.4		0.8	J	2.3		4	4	0.54	2.3
Barium 7440-39-3	Target	10	104		97.4		104		104		105		122		4	4	97.4	122
Beryllium 7440-41-7	Target	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0	4	ND	ND
Cadmium 7440-43-9	Target	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0	4	ND	ND
Calcium 7440-70-2	Target	500	75,900		71,800		72,500		256,000		75,200		220,000		4	4	71,800	256,000
Chromium 7440-47-3	Target	2	0.65	J	0.37	J	0.57	J	0.37	J	0.63	J	0.34	J	4	4	0.34	0.57
Cobalt 7440-48-4	Target	1	0.5	J	0.3	J	0.5	J	0.9	U	0.4	J	0.8	J	3	4	0.5	0.9
Copper 7440-50-8	Target	2	2.6		1.8	J	2.0		3.5		2.3		2.3		4	4	1.8	3.5
Iron 7439-89-6	Target	200	455		154	J	896		212		395		279		4	4	154	896
Lead 7439-92-1	Target	1	0.62	J	1.0	U	0.52	J	1.0	U	0.56	J	0.22	J	2	4	0.22	0.52
Magnesium 7439-95-4	Target	500	13,900		13,100		13,000		31,400		13,800		30,500		4	4	13,000	31,400
Manganese 7439-96-5	Target	1	397		335		599		903		371		1,570		4	4	335	1,570
Nickel 7440-02-0	Target	1	1.2		0.8	J	1.0	J	0.7	J	1.0	J	0.5	J	4	4	0.5	1.0
Potassium 7440-09-7	Target	500	3,930		3,870		3,620		7,440		3,870		10,300		4	4	3,620	10,300
Selenium 7782-49-2	Target	5	5.0	U	5.0	U	5	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND
Silver 7440-22-4	Target	1	1.0	U	1.0	U	1	U	1.0	U	1.0	U	1.0	U	0	4	ND	ND
Sodium 7440-23-5	Target	500	31,000		28,800		27,500		19,300		29,700		20,100		4	4	19,300	28,800
Thallium 7440-28-0	Target	1	1.0	U	1.0	U	1	U	1.0	U	1.0	U	1.0	U	0	4	ND	ND
Vanadium 7440-62-2	Target	5	5.0	U	5.0	U	5	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND
Zinc 7440-66-6	Target	2	5.3		3.0		4.2		7.9		5.0		7.6		4	4	3.0	7.9

NOTES:

CRQL: Contract Required Quantitation Limit

ug/L: Micrograms per liter

USEPA RSL: United States Environmental Protection Agency Regional Screening Level

ND: Not detected at a concentration greater than the CRQL

NA: Not Applicable or available

BG: No site-specific background levels; therefore, CRQL was used as background.

COPC: Contaminant of Potential Concern

COC: Compound or analyte concentration above the action limit

HRS Observed Release: Compound or analyte concentration >3X BG concentration.

1: USEPA Regional Screening Levels (RSLs) for Tapwater (May 2016)

2: WV De Minimis Standards for Groundwater (June 2014)

Q: Qualifier

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 6B - Analytical Summary Table – Surface Water

SVOCs – USEPA Regional Screening Levels (RSLs) for Tapwater

St. Albans Trailer Park

St. Albans, Kanawha County, West Virginia

Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/L)								Frequency		Concentration		Action Level Concentration (ug/L)	COC ?	Background Concentration (ug/L)	HRS Observed
			SW-1 (Background) Q	SW-2 Q	SW-3 Q	SW-4 Q	SW-5 (FD of SW-1) Q	SW-6 Q	Detcts	Samples	Min (ug/L)	Max (ug/L)						
Semi-Volatile Organic Compounds																		
1,4-Dioxane 123-91-1 (SIM)	Target	0.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0	4	ND	ND	0.46	1	NO	1	NO	
Benzaldehyde 100-52-7	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	19	1	NO	5	NO	
Phenol 108-95-2	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	5,800	1	NO	5	NO	
Bis(2-chloroethyl) ether 111-44-4	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	0.014	1	NO	5	NO	
2-Chlorophenol 95-57-8	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	91	1	NO	2.5	NO	
2-Methylphenol 95-48-7	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	930	1	NO	5	NO	
2,2'-Oxybis(1-chloropropane) 108-60-1	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	710	1	NO	5	NO	
Acetophenone 98-86-2	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	1,900	1	NO	5	NO	
4-Methylphenol 106-44-5	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	1,900	1	NO	5	NO	
N-Nitroso-di-n propylamine 621-64-7	Target	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0	4	ND	ND	0.011	1	NO	2	NO	
Hexachloroethane 67-72-1	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	0.33	1	NO	2.5	NO	
Nitrobenzene 98-95-3	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	0.14	1	NO	2.5	NO	
Isophorone 78-59-1	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	78	1	NO	2.5	NO	
2-Nitrophenol 88-75-5	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	NA	NO	2.5	NO		
2,4-Dimethylphenol 105-67-9 (SIM)	Target	0.3	0.3 R	0.3 R	0.3 R	0.3 R	0.3 R	0.3 R	0	4	ND	ND	360	1	NO	1	NO	
Bis(2-chloroethoxy)methane 111-91-1	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	59	1	NO	2.5	NO	
2,4-Dichlorophenol 120-83-2	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	46	1	NO	2.5	NO	
Naphthalene 91-20-3	Target	0.1	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	0.17	1	NO	2.5	NO	
4-Chloroaniline 106-47-8	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	0.37	1	NO	5	NO	
Hexachlorobutadiene 87-68-3 (SIM)	Target	1.0	1.0 R	1.0 R	1.0 R	1.0 R	1.0 R	1.0 R	0	4	ND	ND	0.14	1	NO	1	NO	
Caprolactam 105-60-2	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	9,900	1	NO	5	NO	
4-Chloro-3-methylphenol 59-50-7	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	1,400	1	NO	2.5	NO	
2-Methylnaphthalene 91-57-6	Target	0.1	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	36	1	NO	2.5	NO	
Hexachlorocyclo-pentadiene 77-47-4	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	0.41	1	NO	5	NO	
2,4,6-Trichlorophenol 88-06-2	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	4.1	1	NO	2.5	NO	
2,4,5-Trichlorophenol 95-95-4	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	1,200	1	NO	2.5	NO	
1,1'-Biphenyl 92-52-4	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	0.83	1	NO	2.5	NO	
2-Chloronaphthalene 91-58-7 (SIM)	Target	0.3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0	4	ND	ND	750	1	NO	1	NO	
2-Nitroaniline 88-74-4	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	190	1	NO	2.5	NO	
Dimethylphthalate 131-11-3	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	NA	NO	2.5	NO		
2,6-Dinitrotoluene 606-20-2	Target	5	1.0 R	1.0 R	1.0 R	1.0 R	1.0 R	1.0 R	0	4	ND	ND	0.049	1	NO	1	NO	
Acenaphthylene 208-96-8	Target	0.1	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	300	2	NO	2.5	NO	
3-Nitroaniline 99-09-2	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO		
Acenaphthene 83-32-9	Target	0.1	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	530	1	NO	2.5	NO	
2,4-Dinitrophenol 51-28-5	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	39	1	NO	5	NO	
4-Nitrophenol 100-02-7	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO		
Dibenzofuran 132-64-9	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	7.9	1	NO	2.5	NO	
2,4-Dinitrotoluene 121-14-2	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	0.24	1	NO	2.5	NO	
Diethylphthalate 84-66-2	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	15,000	1	NO	2.5	NO	
Fluorene 86-73-7	Target	0.1	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	290	1	NO	2.5	NO	
4-Chlorophenyl-phenyl ether 7005-72-3	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	NA	NO	2.5	NO		
4-Nitroaniline 100-01-6	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	3.8	1	NO	5	NO	
4,6-Dinitro-2-methylphenol 534-52-1	Target	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	1.5	1	NO	5	NO	
N-Nitrosodiphenylamine 86-30-6	Target	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0	4	ND	ND	12	1	NO	2.		

Table 6C - Analytical Summary Table – Surface Water
VOCs – USEPA Regional Screening Levels (RSLs) for Tapwater
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/L)						Frequency		Concentration		Action Level Concentration (ug/L)	COC ?	Background Concentration (ug/L)	HRS Observed							
			SW-1 (Background)	Q	SW-2 Q	SW-3 Q	SW-4 Q	SW-5 (FD of SW-1)	Q	SW-6 Q	Detects	Samples	Min (ug/L)	Max (ug/L)									
Volatile Organic Compounds																							
Dichlorodifluoromethane 75-71-8	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	200	1	NO	5	NO				
Chloromethane 74-87-3	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	190	1	NO	5	NO				
Vinyl chloride 75-01-4	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.019	1	NO	5	NO				
Bromomethane 74-83-9	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	7.5	1	NO	5	NO				
Chloroethane 75-00-3	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	21,000	1	NO	5	NO				
Trichlorofluoromethane 75-69-4	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	5,200	1	NO	5	NO				
1,1-Dichlorethene 75-35-4	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	280	1	NO	5	NO				
1,1,2-Trichloro-1,2,2-trifluoroethane 76-13-1	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	55,000	1	NO	5	NO				
Acetone 67-64-1	Target	5	3.7	J	3.7	J	3.2	J	3.2	J	3.8	J	4.7	J	4	4	3.2	4.7	14,000	1	NO	3.7	NO
Carbon disulfide 75-15-0	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	810	1	NO	5	NO		
Methyl acetate 79-20-9	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	20,000	1	NO	5	NO		
Methylene chloride 75-09-2	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	11	1	NO	5	NO		
trans-1,2-Dichloroethene 156-60-5	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	360	1	NO	5	NO		
Methyl tert-butyl ether 1634-04-4	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	14	1	NO	5	NO		
1,1-Dichloroethane 75-34-3	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	2.8	1	NO	5	NO		
cis-1,2-Dichloroethene 156-59-2	Target	0.5	0.23	J	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	36	1	NO	0.23	NO		
2-Butanone 78-93-3	Target	5	10	U	10	U	10	U	10	U	10	U	0	4	ND	ND	5,600	1	NO	10	NO		
Bromochloromethane 74-97-5	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	83	1	NO	5	NO		
Chloroform 67-66-3	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.22	1	NO	5	NO		
1,1,1-Trichloroethane 71-55-6	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	8,000	1	NO	5	NO		
Cyclohexane 110-82-7	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	13,000	1	NO	5	NO		
Carbon tetrachloride 56-23-5	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.46	1	NO	5	NO		
Benzene 71-43-2	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.46	1	NO	5	NO		
1,2-Dichloroethane 107-06-2	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.17	1	NO	5	NO		
Trichloroethene 79-01-6	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.49	1	NO	5	NO		
Methylcyclohexane 108-87-2	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA		NO	5	NO		
1,2-Dichloropropane 78-87-5	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.44	1	NO	5	NO		
Bromodichloromethane 75-27-4	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.13	1	NO	5	NO		
cis-1,3-Dichloropropene 10061-01-5	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA		NO	5	NO		
4-Methyl-2-pentanone 108-10-1	Target	5	10	U	10	U	10	U	10	U	10	U	0	4	ND	ND	6,300	1	NO	10	NO		
Toluene 108-88-3	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	1,100	1	NO	5	NO		
trans-1,3-Dichloropropene 10061-02-6	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA		NO	5	NO		
1,1,2-Trichloroethane 79-00-5	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.28	1	NO	5	NO		
Tetrachloroethene 127-18-4	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	11	1	NO	5	NO		
2-Hexanone 591-78-6	Target	5	10	U	10	U	10	U	10	U	10	U	0	4	ND	ND	38	1	NO	10	NO		
Dibromochloromethane 124-48-1	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.87	1	NO	5	NO		
1,2-Dibromoethane 106-93-4	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	0.0075	1	NO	5	NO		
Chlorobenzene 108-90-7	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	78	1	NO	5	NO		
Ethylbenzene 100-41-4	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	1.5	1	NO	5	NO		
o-Xylene 95-47-6	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	190	1	NO	5	NO		
m,p-Xylene 179601-23-1	Target	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0</td										

Table 6D - Analytical Summary Table – Surface Water
Inorganics – USEPA Region III Freshwater Screening Benchmarks
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/L)						Frequency		Concentration		USEPA Freshwater Screening Benchmark (ug/L)	COC ?	Background Concentration (ug/L)	HRS Observed Release?	
			SW-1 (Background) Q	SW-2 Q	SW-3 Q	SW-4 Q	SW-5 (FD of SW-1) Q	SW-6 Q	Detects	Samples	Min (ug/L)	Max (ug/L)					
Inorganics																	
Aluminum 7429-90-5	Target	20	128	26.7	146	18.0 J	116	54.2	4	4	18	146	87	1	YES	128	NO
Antimony 7440-36-0	Target	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0	4	ND	ND	30	1	NO	2	NO
Arsenic 7440-38-2	Target	1	0.64 J	0.54 J	1.4	1.4	0.8 J	2.3	4	4	0.54	2.3	5	1	NO	0.64	YES
Barium 7440-39-3	Target	10	104	97.4	104	104	105	122	4	4	97.4	122	4	1	YES	104	NO
Beryllium 7440-41-7	Target	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0	4	ND	ND	0.66	1	NO	1	NO
Cadmium 7440-43-9	Target	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0	4	ND	ND	0.25	1	NO	1	NO
Calcium 7440-70-2	Target	500	75,900	71,800	72,500	256,000	75,200	220,000	4	4	71,800	256,000	1,116,000	1	NO	75,900	YES
Chromium 7440-47-3	Target	2	0.65 J	0.37 J	0.57 J	0.37 J	0.63 J	0.34 J	4	4	0.34	0.65	85	1	NO	0.65	NO
Cobalt 7440-48-4	Target	1	0.5 J	0.3 J	0.5 J	0.9 U	0.4 J	0.8 J	3	4	ND	ND	23	1	NO	0.54	YES
Copper 7440-50-8	Target	2	2.6	1.8 J	2.0	3.5	2.3	2.3	4	4	2.3	3.5	9	1	NO	2.6	NO
Iron 7439-89-6	Target	200	455	154 J	896	212	395	279	4	4	154	896	300	1	YES	455	NO
Lead 7439-92-1	Target	1	0.62 J	1.0 U	0.52 J	1.0 U	0.56 J	0.22 J	2	4	0.22	0.56	2.5	1	NO	0.62	NO
Magnesium 7439-95-4	Target	500	13,900	13,100	13,000	31,400	13,800	30,500	4	4	13,000	31,400	82,000	1	NO	13,900	NO
Manganese 7439-96-5	Target	1	397	335	599	903	371	1,570	4	4	335	1570	120	1	YES	397	YES
Nickel 7440-02-0	Target	1	1.2	0.8 J	1.0 J	0.7 J	1.0 J	0.5 J	4	4	0.5	1.0	52	1	NO	1.2	NO
Potassium 7440-09-7	Target	500	3,930	3,870	3,620	7,440	3,870	10,300	4	4	3,620	10,300	53,000	1	NO	3,930	NO
Selenium 7782-49-2	Target	5	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	1	1	NO	5	NO
Silver 7440-22-4	Target	1	1.0 U	1.0 U	1 U	1.0 U	1.0 U	1.0 U	0	4	ND	ND	3.2	1	NO	1	NO
Sodium 7440-23-5	Target	500	31,000	28,800	27,500	19,300	29,700	20,100	4	4	19,300	29,700	680,000	1	NO	31,000	NO
Thallium 7440-28-0	Target	1	1.0 U	1.0 U	1 U	1.0 U	1.0 U	1.0 U	0	4	ND	ND	0.8	1	NO	1	NO
Vanadium 7440-62-2	Target	5	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	20	1	NO	5	NO
Zinc 7440-66-6	Target	2	5.3	3.0	4.2	7.9	5.0	7.6	4	4	3	7.9	120	1	NO	5.3	NO

NOTES:

CRQL: Contract Required Quantitation Limit

ug/L: Micrograms per liter

ND: Not detected at a concentration greater than the CRQL

NA: Not Applicable or available

COPC: Contaminant of Potential Concern

COC: Compound or analyte concentration above the action limit

HRS Observed Release: Compound or analyte concentration >3X BG concentration.

1: USEPA Region III Freshwater Screening Benchmarks, July 2006.

Q: Qualifier

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 6E - Analytical Summary Table – Surface Water
SVOCs – USEPA Region III Freshwater Screening Benchmarks
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/L)										Frequency		Concentration		USEPA Freshwater Screening Benchmark (ug/L)	COC ?	Background Concentration (ug/L)	HRS Observed Release?			
			SW-1 (Background)	Q	SW-2	Q	SW-3	Q	SW-4	Q	SW-5 (FD of SW-1)	Q	SW-6	Q	Detects	Samples	Min (ug/L)	Max (ug/L)					
			Semi-Volatile Organic Compounds																				
1,4-Dioxane 123-91-1 (SIM)	Target	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0	4	ND	ND	NA	NO	1	NO	
Benzaldehyde 100-52-7	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA	NO	5	NO	
Phenol 108-95-2	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	4	1	NO	5	NO
Bis(2-chloroethyl) ether 111-44-4	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA	NO	5	NO	
2-Chlorophenol 95-57-8	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	24	1	NO	2.5	NO
2-Methylphenol 95-48-7	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	13	1	NO	5	NO
2,2'-Oxybis(1-chloropropane) 108-60-1	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA	NO	5	NO	
Acetophenone 98-86-2	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA	NO	5	NO	
4-Methylphenol 106-44-5	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	543	1	NO	5	NO
N-Nitroso-d-n-propylamine 621-64-7	Target	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	0	4	ND	ND	NA	NO	2	NO	
Hexachloroethane 67-72-1	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	12	1	NO	2.5	NO
Nitrobenzene 98-95-3	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA	NO	2.5	NO	
Isophorone 78-59-1	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA	NO	2.5	NO	
2-Nitrophenol 88-75-5	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	1920	1	NO	2.5	NO
2,4-Dimethylphenol 105-67-9 (SIM)	Target	0.3	0.3	R	0.3	R	0.3	R	0.3	R	0.3	R	0.3	R	0	4	ND	ND	NA	NO	1	NO	
Bis(2-chloroethoxy)methane 111-91-1	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA	NO	2.5	NO	
2,4-Dichlorophenol 120-83-2	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	11	1	NO	2.5	NO
Naphthalene 91-20-3	Target	0.1	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	1.1	1	NO	2.5	NO
4-Chloroaniline 106-47-8	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	232	1	NO	5	NO
Hexachlorobutadiene 87-68-3 (SIM)	Target	1.0	1.0	R	1.0	R	1.0	R	1.0	R	1.0	R	1.0	R	0	4	ND	ND	1.3	1	NO	1	NO
Caprolactam 105-60-2	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA	NO	5	NO	
4-Chloro-3-methylphenol 59-50-7	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA	NO	2.5	NO	
2-Methylnaphthalene 91-57-6	Target	0.1	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	4.7	1	NO	2.5	NO
Hexachlorocyclo-pentadiene 77-47-4	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA	NO	5	NO	
2,4,6-Trichlorophenol 88-06-2	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	4.9	1	NO	2.5	NO
2,4,5-Trichlorophenol 95-95-4	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA	NO	2.5	NO	
1,1'-Biphenyl 92-52-4	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	14	1	NO	2.5	NO
2-Chloronaphthalene 91-58-7 (SIM)	Target	0.3	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0	4	ND	ND	NA	NO	1	NO	
2-Nitroaniline 88-74-4	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA	NO	2.5	NO	
Dimethylphthalate 131-11-3	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA	NO	2.5	NO	
2,6-Dinitrotoluene 606-20-2	Target	5	1.0	R	1.0	R	1.0	R	1.0	R	1.0	R	1.0	R	0	4	ND	ND	81	1	NO	1	NO
Acenaphthylene 208-96-8	Target	0.1	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	NA	NO	2.5	NO	
3-Nitroaniline 99-09-2	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA	NO	5	NO	
Acenaphthene 83-32-9	Target	0.1	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	5.8	1	NO	2.5	NO
2,4-Dinitrophenol 51-28-5	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	NA	NO	5	NO	
4-Nitrophenol 100-02-7	Target	10	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0	4	ND	ND	60	1	NO	5	NO
Dibenzofuran 132-64-9	Target	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0	4	ND	ND	3.7	1	NO	2.5	NO
2,4-Dinitrotoluene 121-14-2	Target	5	2.5	U	2.5	U	2.5	U</															

Table 6F - Analytical Summary Table – Surface Water
VOCs – USEPA Region III Freshwater Screening Benchmarks
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/L)							Frequency		Concentration		USEPA Freshwater Screening Benchmark (ug/L)	COC ?	Background Concentration (ug/L)	HRS Observed Release?
			SW-1 (Background Q d)	SW-2 Q	SW-3 Q	SW-4 Q	SW-5 (FD of SW- 1)	SW-6 Q	Detects	Samples	Min (ug/L)	Max (ug/L)					
Volatile Organic Compounds																	
Dichlorodifluoromethane 75-71-8	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Chloromethane 74-87-3	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Vinyl chloride 75-01-4	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	930	1	NO	5	
Bromomethane 74-83-9	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Chloroethane 75-00-3	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Trichlorodifluoromethane 75-69-4	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
1,1-Dichloroethene 75-35-4	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	25	1	NO	5	
1,1,2-Trichloro-1,2,2-trifluoroethane 76-13-1	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Acetone 67-64-1	Target	5	3.7 J	3.7 J	3.2 J	3.2 J	3.8 J	4.7 J	4	4	3.2	4.7	1500	1	NO	3.7	
Carbon disulfide 75-15-0	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	0.92	1	NO	5	
Methyl acetate 79-20-9	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Methylene chloride 75-09-2	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	98.1	1	NO	5	
trans-1,2-Dichloroethene 156-60-5	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	970	1	NO	5	
Methyl tert-butyl ether 1634-04-4	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	11070	1	NO	5	
1,1-Dichloroethane 75-34-3	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	47	1	NO	5	
cis-1,2-Dichloroethene 156-59-2	Target	0.5	0.2 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	0.23	NO	
2-Butanone 78-93-3	Target	5	10 U	10 U	10 U	10 U	10 U	10 U	0	4	ND	ND	14000	1	NO	10	
Bromochloromethane 74-97-5	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	1	NO	5	
Chloroform 67-66-3	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	1.8	1	NO	5	
1,1,1-Trichloroethane 71-55-6	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	11	1	NO	5	
Cyclohexane 110-82-7	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Carbon tetrachloride 56-23-5	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	13.3	1	NO	5	
Benzene 71-43-2	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	370	1	NO	5	
1,2-Dichloroethane 107-06-2	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	100	1	NO	5	
Trichloroethene 79-01-6	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	21	1	NO	5	
Methylcyclohexane 108-87-2	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
1,2-Dichloropropane 78-87-5	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Bromodichloromethane 75-27-4	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
cis-1,3-Dichloropropene 10061-01-5	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
4-Methyl-2-pentanone 108-10-1	Target	5	10 U	10 U	10 U	10 U	10 U	10 U	0	4	ND	ND	170	1	NO	10	
Toluene 108-88-3	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	2	1	NO	5	
trans-1,3-Dichloropropene 10061-02-6	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
1,1,2-Trichloroethane 79-00-5	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	1200	1	NO	5	
Tetrachloroethene 127-18-4	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	111	1	NO	5	
2-Hexanone 591-78-6	Target	5	10 U	10 U	10 U	10 U	10 U	10 U	0	4	ND	ND	99	1	NO	10	
Dibromochloromethane 124-48-1	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
1,2-Dibromoethane 106-93-4	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	NA	NO	5	NO	
Chlorobenzene 108-90-7	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	1.3	1	NO	5	
Ethylbenzene 100-41-4	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	90	1	NO	5	
o-Xylene 95-47-6	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	13	1	NO	5	
m,p-Xylene 179601-23-1	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	13	1	NO	5	
Styrene 100-42-5	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	72	1	NO	5	
Bromoform 75-25-2	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	320	1	NO	5	
Isopropylbenzene 98-82-8	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	2.6	1	NO	5	
1,1,2,2-Tetrachloroethane 79-34-5	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	610	1	NO	5	
1,3-Dichlorobenzene 541-73-1	Target	0.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0	4	ND	ND	150	1	NO	5	
1,4-Dichlorobenzene 106-46-7	Target	0.5	5.0 U	5.0 U	5.0 U												

Table 7A - Analytical Summary Table – Sediments
Inorganics – USEPA Regional Screening Levels (RSLs) for Residential Soil
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL ICP-MS	Concentration mg/kg						Frequency		Concentration		USEPA RSL Residential Soil (ug/kg)	COC ?	Background Concentration (mg/kg)	HRS Observed Release?					
			SD-1 (Background)	Q	SD-2	Q	SD-3	Q	SD-4	Q	SD-5 (FD of SD-1)	Q	Detects	Samples	Min (mg/kg)	Max (mg/kg)					
Inorganics																					
Antimony 7440-36-0	Target	1	2.0	U	1.2	U	1.3	U	1.4	U	3.5	0	3	ND	ND	31	1	NO	2.0	NO	
Arsenic 7440-38-2	Target	0.5	3.8		4.6		4.8		2.9		5.4	3	3	2.9	4.8	0.68 (13*)	1	NO	3.8	NO	
Barium 7440-39-3	Target	5	114		116		115		101		131	3	3	101	116	15,000	1	NO	114	NO	
Beryllium 7440-41-7	Target	0.5	0.99	U	0.82		0.87		0.73		0.98	3	3	0.73	0.9	160	1	NO	0.99	NO	
Cadmium 7440-43-9	Target	0.5	0.99	U	0.25	J	0.30	J	0.34	J	0.97	U	3	3	0.25	0.34	71	1	NO	0.99	NO
Chromium 7440-47-3	Target	1	15.4		13.6		14.4		11.3		17.6	3	3	11.3	14.4	NA		NO	15.4	NO	
Cobalt 7440-48-4	Target	0.5	15.6		12.7		13.1		11.4		13.4	3	3	11.4	13.1	23	1	NO	15.6	NO	
Copper 7440-50-8	Target	1	22.6		19.4		22.6		20.8		34.8	3	3	19.4	22.6	3,100	1	NO	22.6	NO	
Lead 7439-92-1	Target	0.5	23.4		22.0		25.5		27.2		33.6	3	3	22.0	27.2	400	1	NO	23.4	NO	
Manganese 7439-96-5	Target	0.5	889		744		716		406		653	3	3	406	716	NA		NO	889	NO	
Nickel 7440-02-0	Target	0.5	18.7		16.9		17.6		16.4		19.4	3	3	16.4	17.6	1,500	1	NO	18.7	NO	
Selenium 7782-49-2	Target	2.5	4.9	U	3.0	U	3.3	U	3.4	U	4.8	U	0	3	ND	ND	390	1	NO	4.9	NO
Silver 7440-22-4	Target	0.5	0.99	U	0.60	U	0.11	J	0.12	J	0.97	U	2	3	0.11	0.12	390	1	NO	0.99	NO
Thallium 7440-28-0	Target	0.5	0.99	U	0.60	U	0.67	U	0.68	U	0.97	U	0	3	ND	ND	0.78	1	NO	0.99	NO
Vanadium 7440-62-2	Target	2.5	20.6		17.8		18.9		15.8		20.7	3	3	15.8	18.9	390	1	NO	20.6	NO	
Zinc 7440-66-6	Target	1	81.5		97.4		107		112		129	3	3	97.4	112.0	23,000	1	NO	81.5	NO	

NOTES:

COPC: Contaminant of Potential Concern

CRQL: Contract Required Quantitation Limit

mg/kg: Milligrams per kilogram

USEPA RSL: United States Environmental Protection Agency Regional Screening Level

* West Virginia Natural Background Standard

ND: Not detected at a concentration greater than the CRQL

NA: Not Applicable or available

COC: Compound or analyte concentration above the action limit

HRS Observed Release: Compound or analyte concentration >3X BG concentration.

1: USEPA Regional Screening Levels (RSLs) for Residential Soil (May 2016)

Q: Qualifier

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 7B - Analytical Summary Table – Sediment
SVOCs – USEPA Regional Screening Levels (RSLs) for Residential Soil
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration ug/kg							Frequency		Concentration		USEPA RSL Residential Soil (ug/kg)	COC ?	Background Concentration (ug/kg)	HRS Observed Release?				
			SD-1 (Background)	Q	SD-2	Q	SD-3	Q	SD-4	Q	SD-5 (FD of SD-1)	Q	Detects	Samples	Min (ug/kg)	Max (ug/kg)					
Semi-Volatile Organic Compounds																					
1,4-Dioxane 123-91-1	Target	67	82	UJ	86	UJ	100	UJ	170	UJ	84	UJ	0	3	ND	ND	5,300	1	NO	82	NO
Benzaldehyde 100-52-7	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	170,000	1	NO	410	NO
Phenol 108-95-2	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	19,000,000	1	NO	410	NO
Bis(2-chloroethyl) ether 111-44-4	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	230	1	NO	410	NO
2-Chlorophenol 95-57-8	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	390,000	1	NO	200	NO
2-Methylphenol 95-48-7	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	3,200,000	1	NO	410	NO
2,2'-Oxybis(1-chloropropane) 108-60-1	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	3,100,000	1	NO	410	NO
Acetophenone 98-86-2	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	7,800,000	1	NO	410	NO
4-Methylphenol 106-44-5	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	6,300,000	1	NO	410	NO
N-Nitroso-di-n-propylamine 621-64-7	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	78	1	NO	200	NO
Hexachloroethane 67-72-1	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	1,800	1	NO	200	NO
Nitrobenzene 98-95-3	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	5,100	1	NO	200	NO
Isophorone 78-59-1	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	570,000	1	NO	200	NO
2-Nitrophenol 88-75-5	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	NA		NO	200	NO
2,4-Dimethylphenol 105-67-9	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	1,300,000	1	NO	200	NO
Bis(2-chloroethoxy)methane 111-91-1	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	190,000	1	NO	200	NO
2,4-Dichlorophenol 120-83-2	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	190,000	1	NO	200	NO
Naphthalene 91-20-3 (SIM)	Target	3.3	4.1	R	4.2	R	4.5	J+	8.2	R	4.2	R	1	3	4.5	4.5	3,800	1	NO	4.1	NO
4-Chloraniline 106-47-8	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	2,700	1	NO	410	NO
Hexachlorobutadiene 87-68-3	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	1,200	1	NO	200	NO
Caprolactam 105-60-2	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	31,000,000	1	NO	410	NO
4-Chloro-3-methylphenol 59-50-7	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	6,300,000	1	NO	200	NO
2-Methylnaphthalene 91-57-6 (SIM)	Target	3.3	4.1	U	4.2	U	5	J	8.2	U	4.2	U	1	3	5	5	240,000	1	NO	4.1	NO
Hexachlorocyclo-pentadiene 77-47-4	Target	330	410	UJ	430	UJ	510	UJ	830	UJ	420	UJ	0	3	ND	ND	1,800	1	NO	410	NO
2,4,6-Trichlorophenol 88-06-2	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	49,000	1	NO	200	NO
2,4,5-Trichlorophenol 95-95-4	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	6,300,000	1	NO	200	NO
1,1'Bi phenyl 92-52-4	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	47,000	1	NO	200	NO
2-Chloronaphthalene 91-58-7	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	4,800,000	1	NO	200	NO
2-Nitroaniline 88-74-4	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	630,000	1	NO	200	NO
Dimethylphthalate 131-11-3	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	NA		NO	200	NO
2,6-Dinitrotoluene 606-20-2	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	360	1	NO	200	NO
Acenaphthylene 208-96-8 (SIM)	Target	3.3	4.6		9.6		18		12		11		3	3	9.6	18	NA		NO	5	YES
3-Nitroaniline 99-09-2	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	NA		NO	410	NO
Acenaphthene 83-32-9 (SIM)	Target	3.3	4.1	U	4.2	U	6.2		8.2	U	4.8		1	3	6.2	6.2	3,600,000	1	NO	4	NO
2,4-Dinitrophenol 51-28-5	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	130,000	1	NO	410	NO
4-Nitrophenol 100-02-7	Target	330	410	U	430	U	510	U	830	U	420	U	0	3	ND	ND	NA		NO	410	NO
Dibenzofuran 132-64-9	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	73,000	1	NO	200	NO
2,4-Dinitrotoluene 121-14-2	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	1,700	1	NO	200	NO
Diethylphthalate 84-66-2	Target	170	200	U	210	U	260	U	410	U	210	U	0	3	ND	ND	51,000,000	1	NO	200	NO

Table 7C - Analytical Summary Table – Sediment
VOCs – USEPA Regional Screening Levels (RSLs) for Residential Soil
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/kg)						Frequency		Concentration		USEPA RSL Residential Soil (ug/kg)	COC ?	Background Concentration (ug/kg)	HRS Observed Release?					
			SD-1 (Background)	Q	SD-2 Q	SD-3 Q	SD-4 Q	SD-5 (FD of SD-1) Q	Detcts	Samples	Min (ug/kg)	Max (ug/kg)									
Volatile Organic Compounds																					
Dichlorodifluoromethane 75-71-8	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	87,000	1	NO	5.9	NO	
Chloromethane 74-87-3	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	110,000	1	NO	5.9	NO
Vinyl chloride 75-01-4	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	59	1	NO	5.9	NO
Bromomethane 74-83-9	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	6,800	1	NO	5.9	NO
Chloroethane 75-00-3	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	14,000,000	1	NO	5.9	NO
Trichlorofluoromethane 75-69-4	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	23,000,000	1	NO	5.9	NO
1,1-Dichloroethene 75-35-4	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	230,000	1	NO	5.9	NO
1,1,2-Trichloro-1,2,2-trifluoroethane 76-13-1	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	40,000,000	1	NO	5.9	NO
Acetone 67-64-1	Target	10.0	12	U	11.0	U	25		30	U	11	U	1	4	25	25	61,000,000	1	NO	12.0	NO
Carbon disulfide 75-15-0	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	770,000	1	NO	5.9	NO
Methyl acetate 79-20-9	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	78,000,000	1	NO	5.9	NO
Methylene chloride 75-09-2	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	57,000	1	NO	5.9	NO
trans-1,2-Dichloroethene 156-60-5	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	1,600,000	1	NO	5.9	NO
Methyl tert-butyl ether 1634-04-4	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	47,000	1	NO	5.9	NO
1,1-Dichloroethane 75-34-3	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	3,600	1	NO	5.9	NO
cis-1,2-Dichloroethene 156-59-2	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	160,000	1	NO	5.9	NO
2-Butanone 78-93-3	Target	10.0	12	U	11.0	U	12	J	30	U	11	U	1	4	12	12	27,000,000	1	NO	12	NO
Bromochloromethane 74-97-5	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	150,000	1	NO	5.9	NO
Chloroform 67-66-3	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	320	1	NO	5.9	NO
1,1,1-Trichloroethane 71-55-6	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	8,100,000	1	NO	5.9	NO
Cyclohexane 110-82-7	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	6,500,000	1	NO	5.9	NO
Carbon tetrachloride 56-23-5	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	650	1	NO	5.9	NO
Benzene 71-43-2	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	1,200	1	NO	5.9	NO
1,2-Dichloroethane 107-06-2	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	460	1	NO	5.9	NO
Trichloroethene 79-01-6	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	940	1	NO	5.9	NO
Methylcyclohexane 108-87-2	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	NA		NO	5.9	NO
1,2-Dichloropropane 78-87-5	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	1,000	1	NO	5.9	NO
Bromodichloromethane 75-27-4	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	290	1	NO	5.9	NO
cis-1,3-Dichloropropene 10061-01-5	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	NA		NO	5.9	NO
4-Methyl-2-pentanone 108-10-1	Target	10.0	12	U	11.0	U	16	U	30	U	11	U	0	4	ND	ND	33,000,000	1	NO	12	NO
Toluene 108-88-3	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	4,900,000	1	NO	5.9	NO
trans-1,3-Dichloropropene 10061-02-6	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	NA		NO	5.9	NO
1,1,2-Trichloroethane 79-00-5	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	1,100	1	NO	5.9	NO
Tetrachloroethene 127-18-4	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	24,000	1	NO	5.9	NO
2-Hexanone 591-78-6	Target	10.0	12	U	11	U	16	U	30	U	11	U	0	4	ND	ND	200,000	1	NO	12	NO
Dibromochloromethane 124-48-1	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	8,300	1	NO	5.9	NO
1,2-Dibromoethane 106-93-4	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	36	1	NO	5.9	NO
Chlorobenzene 108-90-7	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	280,000	1	NO	5.9	NO
Ethylbenzene 100-41-4	Target	5.0	5.9	U	5.4	U	7.8	U	15	U	5.4	U	0	4	ND	ND	5,800	1	NO	5.9	NO
o-Xylene 95-47-6	Target	5.0	5.9	U</td																	

Table 7D - Analytical Summary Table – Sediments
Inorganics – USEPA Region III Freshwater Sediment Benchmarks
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL ICP-MS	Concentration mg/kg						Frequency		Concentration		USEPA Region III Freshwater Sediment Benchmark (mg/kg)	COC ?	Background Concentration (mg/kg)	HRS Observed Release?
			SD-1 (Background) Q	SD-2 Q	SD-3 Q	SD-4 Q	SD-5 (FD of SD-1) Q	Detcts	Samples	Min (mg/kg)	Max (mg/kg)					
Inorganics																
Antimony 7440-36-0	Target	1	2.0 U	1.2 U	1.3 U	1.4 U	3.5	0	3	ND	ND	2.0	1	YES	2.0	NO
Arsenic 7440-38-2	Target	0.5	3.8	4.6	4.8	2.9	5.4	3	3	2.9	4.8	9.8	1	NO	3.8	NO
Barium 7440-39-3	Target	5	114	116	115	101	131	3	3	101	116	NA		NO	114	NO
Beryllium 7440-41-7	Target	0.5	0.99 U	0.82	0.87	0.73	0.98	3	3	0.7	0.9	NA		NO	0.99	NO
Cadmium 7440-43-9	Target	0.5	0.99 U	0.25 J	0.3 J	0.34 J	0.97 U	3	3	0.25	0.34	0.99	1	NO	0.99	NO
Chromium 7440-47-3	Target	1	15.4	13.6	14.4	11.3	17.6	3	3	11.3	14.4	43.4	1	NO	15.4	NO
Cobalt 7440-48-4	Target	0.5	15.6	12.7	13.1	11.4	13.4	3	3	11.4	13.1	50	1	NO	15.6	NO
Copper 7440-50-8	Target	1	22.6	19.4	22.6	20.8	34.8	3	3	19.4	22.6	31.6	1	YES	22.6	NO
Lead 7439-92-1	Target	0.5	23.4	22.0	25.5	27.2	33.6	3	3	22.0	27.2	35.8	1	NO	23.4	NO
Manganese 7439-96-5	Target	0.5	889	744	716	406	653	3	3	406	744	460	1	YES	889	NO
Nickel 7440-02-0	Target	0.5	18.7	16.9	17.6	16.4	19.4	3	3	16.4	17.6	22.7	1	NO	18.7	NO
Selenium 7782-49-2	Target	2.5	4.9 U	3.0 U	3.3 U	3.4 U	4.8 U	0	3	ND	ND	2.0	1	NO	4.9	NO
Silver 7440-22-4	Target	0.5	0.99 U	0.60 U	0.11 J	0.12 J	0.97 U	2	3	0.11	0.12	1.0	1	NO	0.99	NO
Thallium 7440-28-0	Target	0.5	0.99 U	0.60 U	0.67 U	0.68 U	0.97 U	0	3	ND	ND	NA		NO	0.99	NO
Vanadium 7440-62-2	Target	2.5	20.6	17.8	18.9	15.8	20.7	3	3	15.8	18.9	NA		NO	20.6	NO
Zinc 7440-66-6	Target	1	81.5	97.4	107	112	129	3	3	97.4	112	121	1	YES	81.5	NO

NOTES:

COPC: Contaminant of Potential Concern

CRQL: Contract Required Quantitation Limit

mg/kg: Milligrams per kilogram

ND: Not detected at a concentration greater than the CRQL

NA: Not Applicable or available

COC: Compound or analyte concentration above the action limit

HRS Observed Release: Compound or analyte concentration >3X BG concentration.

1: USEPA Region III Freshwater Sediment Screening Benchmarks, August 2006.

Q: Qualifier

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 7E - Analytical Summary Table – Sediment
SVOCs – USEPA Region II Freshwater Sediment Benchmarks
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration ug/kg								Frequency		Concentration		USEPA Region III Freshwater Sediment Benchmark (ug/kg)	COC ?	Background Concentration (ug/kg)	HRS Observed Release?
			SD-1 (Background) Q	SD-2 Q	SD-3 Q	SD-4 Q	SD-5 (FD of SD-1) Q	Detects	Samples	Min (ug/kg)	Max (ug/kg)							
Semi-Volatile Organic Compounds																		
1,4-Dioxane 123-91-1	Target	67	82 UJ	86 UJ	100 UJ	170 UJ	84 UJ	0	3	ND	ND	NA	1	NO	82	NO		
Benzaldehyde 100-52-7	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
Phenol 108-95-2	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	420	1	NO	410	NO		
Bis(2-chloroethyl) ether 111-44-4	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
2-Chlorophenol 95-57-8	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	31.2	1	NO	200	NO		
2-Methylphenol 95-48-7	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
2,2'-Oxybis(1-chloropropane) 108-60-1	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
Acetophenone 98-86-2	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
4-Methylphenol 106-44-5	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	670	1	NO	410	NO		
N-Nitroso-di-n-propylamine 621-64-7	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
Hexachloroethane 67-72-1	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	1,027	1	NO	200	NO		
Nitrobenzene 98-95-3	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
Isophorone 78-59-1	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
2-Nitrophenol 88-75-5	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
2,4-Dimethylphenol 105-67-9	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	29	1	NO	200	NO		
Bis(2-chloroethoxy)methane 111-91-1	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
2,4-Dichlorophenol 120-83-2	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	117	1	NO	200	NO		
Naphthalene 91-20-3 (SIM)	Target	3.3	4.1 R	4.2 R	4.5 J+	8.2 R	4.2 R	1	3	4.5	4.5	176	1	NO	4.1	NO		
4-Chloroaniline 106-47-8	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
Hexachlorobutadiene 87-68-3	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
Caprolactam 105-60-2	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
4-Chloro-3-methylphenol 59-50-7	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
2-Methylnaphthalene 91-57-6 (SIM)	Target	3.3	4.1 U	4.2 U	5 J	8.2 U	4.2 U	1	3	5	5	20.2	1	NO	4.1	NO		
Hexachlorocyclopentadiene 77-47-4	Target	330	410 UJ	430 UJ	510 UJ	830 UJ	420 UJ	0	3	ND	ND	NA	1	NO	410	NO		
2,4,6-Trichlorophenol 88-04-2	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
2,4,5-Trichlorophenol 95-95-4	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
1,1'-Biphenyl 92-52-4	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	1,220	1	NO	200	NO		
2-Chloronaphthalene 91-58-7	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
2-Nitroaniline 88-74-4	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
Dimethylphthalate 131-11-3	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
2,6-Dinitrotoluene 606-20-2	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	NA	1	NO	200	NO		
Acenaphthylene 208-96-8 (SIM)	Target	3.3	4.6	9.6	18	12	11	3	3	9.6	18	5.9	1	YES	5	YES		
3-Nitroaniline 99-09-2	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
Acenaphthene 83-32-9 (SIM)	Target	3.3	4.1 U	4.2 U	6.2	8.2 U	4.8	1	3	6.2	6.2	6.7	1	NO	4	NO		
2,4-Dinitrophenol 51-28-5	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
4-Nitrophenol 100-01-6	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
4,6-Dinitro-2-methylphenol 534-52-1	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	NA	1	NO	410	NO		
N-Nitrosodiphenylamine 86-30-6	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	2,680	1	NO	200	NO		
1,2,4,5-Tetrachlorobenzene 95-94-3	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	1,090	1	NO	200	NO		
4-Bromophenyl-phenylether 101-55-3	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	1,230	1	NO	200	NO		
Hexachlorobenzene 118-74-1	Target	170	200 U	210 U	260 U	410 U	210 U	0	3	ND	ND	20	1	NO	200	NO		
Atrazine 1912-24-9	Target	330	410 U	430 U	510 U	830 U	420 U	0	3	ND	ND	6.62	1	NO	410	NO		
Pentachlorophenol 87-86-5 (SIM)	Target	6.7	8.2 U	8.6 U	10 U	17 U	8.5 U	0	3	ND	ND	504	1	NO	8.2	NO		
Phenanthrene 85-01-8 (SIM)	Target	3.3	20	58	110	65	50	3	3	58	110	204	1	NO	20	YES		
Anthracene 12																		

Table 7F - Analytical Summary Table – Sediment
VOCs – USEPA Region III Freshwater Sediment Benchmarks
St. Albans Trailer Park
St. Albans, Kanawha County, West Virginia
Sample Date: October 25, 2016

COPC	Analyte Type	CRQL	Concentration (ug/kg)							Frequency		Concentration		USEPA Region III Freshwater Sediment Benchmark (ug/kg)	COC ?	Background Concentration (ug/kg)	HRS Observed Release?
			SD-1 (Background) Q	SD-2 Q	SD-3 Q	SD-4 Q	SD-5 (FD of SD-1) Q	Detects	Samples	Min (ug/kg)	Max (ug/kg)						
Volatile Organic Compounds																	
Dichlorodifluoromethane 75-71-8	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Chloromethane 74-87-3	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Vinyl chloride 75-01-4	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Bromomethane 74-83-9	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Chloroethane 75-00-3	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Trichlorofluoromethane 75-69-4	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
1,1-Dichloroethene 75-35-4	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	31	1	NO	5.9	NO	
1,1,2-Trichloro-1,2,2-trifluoroethane 76-13-1	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Acetone 67-64-1	Target	10.0	12 U	11.0 U	25	30 U	11 U	1	4	25	25	NA	NA	NO	12	NO	
Carbon disulfide 75-15-0	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	0.851	1	NO	5.9	NO	
Methyl acetate 79-20-9	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Methylene chloride 75-09-2	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
trans-1,2-Dichloroethene 156-60-5	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	1050	NO	5.9	NO		
Methyl tert-butyl ether 1634-04-4	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
1,1-Dichloroethane 75-34-3	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
cis-1,2-Dichloroethene 156-59-2	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
2-Butanone 78-93-3	Target	10.0	12 U	11.0 U	12 J	30 U	11 U	1	4	12	12	NA	NA	NO	12	NO	
Bromoform 74-97-5	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Chloroform 67-66-3	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
1,1,1-Trichloroethane 71-55-6	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	30.2	1	NO	5.9	NO	
Cyclohexane 110-82-7	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Carbon tetrachloride 56-23-5	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	64.2	1	NO	5.9	NO	
Benzene 71-43-2	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
1,2-Dichloroethane 107-06-2	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Trichloroethene 79-01-6	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	96.9	1	NO	5.9	NO	
Methylcyclohexane 108-87-2	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
1,2-Dichloropropane 78-87-5	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Bromodichloromethane 75-27-4	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
cis-1,3-Dichloropropene 10061-01-5	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
4-Methyl-2-pentanone 108-10-1	Target	10.0	12 U	11.0 U	16 U	30 U	11 U	0	4	ND	ND	NA	NA	NO	12	NO	
Toluene 108-88-3	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
trans-1,3-Dichloropropene 10061-02-6	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
1,1,2-Trichloroethane 79-00-5	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	1240	1	NO	5.9	NO	
Tetrachloroethene 127-18-4	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	468	1	NO	5.9	NO	
2-Hexanone 591-78-6	Target	10.0	12 U	11 U	16 U	30 U	11 U	0	4	ND	ND	NA	NA	NO	12	NO	
Dibromochloromethane 124-48-1	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
1,2-Dibromoethane 106-93-4	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
Chlorobenzene 108-90-7	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	8.42	1	NO	5.9	NO	
Ethylbenzene 100-41-4	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	1100	1	NO	5.9	NO	
o-Xylene 95-47-6	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	NA	NA	NO	5.9	NO	
m,p-Xylene 179601-23-1	Target	5.0	5.9 U	5.4 U	7.8 U	1.2 J	5.4 U	1	4	1.2	1.2	NA	NA	NO	5.9	NO	
Styrene 100-42-5	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	559	1	NO	5.9	NO	
Bromoform 75-25-2	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	654	1	NO	5.9	NO	
Isopropylbenzene 98-82-8	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	86	1	NO	5.9	NO	
1,1,2,2-Tetrachloroethane 79-34-5	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	1360	1	NO	5.9	NO	
1,3-Dichlorobenzene 541-73-1	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	4430	1	NO	5.9	NO	
1,4-Dichlorobenzene 106-46-7	Target	5.0	5.9 U	5.4 U	7.8 U	15 U	5.4 U	0	4	ND	ND	599	1	NO	5.9	NO	
1,2-Dichlorobenzene 95-50-1	Target	5.0	5.9 U	5.4 U													

Table 8 - Waste Characterization Profile Summary Table

St. Albans Trailer Park

St. Albans, Kanawha County, West Virginia

Sample Date: January 3, 2017

Compound	CAS Number	Unit of Measure	WC-1	MCL
Ignitability	N/A	N/A	No Flash	N/A
Percent Solids	N/A	wt%	100	N/A
Metals				
Arsenic	7440-38-2	mg/L	0.0064	5.0
Barium	7440-39-3	mg/L	0.16	100.0
Cadmium	7440-43-9	mg/L	ND(<0.005)	1.0
Chromium	7440-47-3	mg/L	0.016	5.0
Lead	7439-92-1	mg/L	0.035	5.0
Selenium	7782-49-2	mg/L	ND(<0.035)	1.0
Silver	7440-22-4	mg/L	0.0019	5.0
Semi-Volatile Organic Compounds				
Hexachlorobenzene	118-74-1	mg/L	ND(<0.0475)	0.13
Hexachlorobutadiene	87-68-3	mg/L	ND(<0.0475)	0.5
Pyridine	110-86-1	mg/L	ND(<0.0475)	5
Pentachlorophenol	87-86-5	mg/L	ND(<0.0475)	100
o-cresol	95-48-7	mg/L	ND(<0.0475)	200
Nitrobenzene	98-95-3	mg/L	ND(<0.0475)	2
Hexachloroethane	67-72-1	mg/L	ND(<0.0475)	3
1,4-Dichlorobenzene	106-46-7	mg/L	ND(<0.0475)	7.5
2,4-Dinitrotoluene	121-14-2	mg/L	ND(<0.0475)	0.13
2,4,6-Trichlorophenol	88-06-2	mg/L	ND(<0.0475)	2
2,4,5-Trichlorophenol	95-95-4	mg/L	ND(<0.0475)	400
m,p-cresol		mg/L	ND(<0.0475)	200
Volatile Organic Compounds				
1,2-Dichloroethane	107-06-2	mg/L	0.339	0.5
Methyl ethyl ketone	78-93-3	mg/L	ND(<0.5)	200
Tetrachloroethene	127-18-4	mg/L	4.95	0.7
1,1-Dichloroethene	75-35-4	mg/L	3.46	0.7
Benzene	71-43-2	mg/L	4.72	0.5
Carbon tetrachloride	56-23-5	mg/L	ND(<0.05)	0.5
Chlorobenzene	108-90-7	mg/L	ND(<0.05)	100
Chloroform	67-66-3	mg/L	1.13	6
Vinyl chloride	75-01-4	mg/L	ND(<0.05)	0.2
Trichloroethene	79-01-6	mg/L	2.72	0.5

Notes:

VOCs via EPA Method 5260B, SVOCs via EPA Method 8270D, Metals via EPA Method 200.7

TCLP via EPA Method 1311, Ignitability via SW-846 Test Method 1030

MCL = Maximum Contaminant Level, Maximum Concentrations of Contaminants for Toxicity Characteristic

mg/L = milligrams per liter

mg/kg = milligrams per kilogram

F° = degrees Fahrenheit

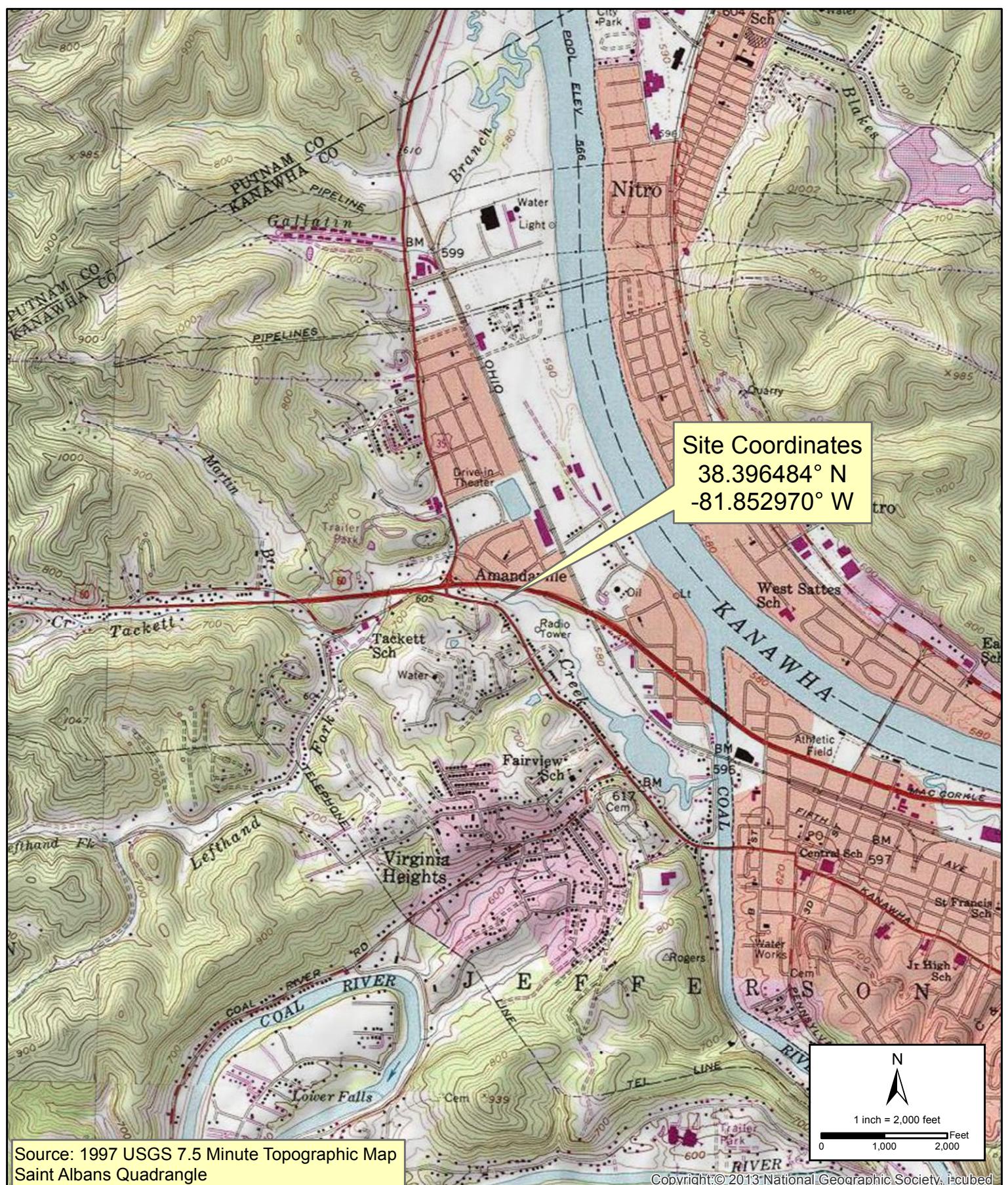
ND = No Detection, concentration is below reporting limit of the analytical method.

() = Practical Quantitation Limit (PQL)

N/A = Not Applicable

Bold = Exceeds Maximum Concentrations of Contaminants for Toxicity Characteristic, USEPA November 2004

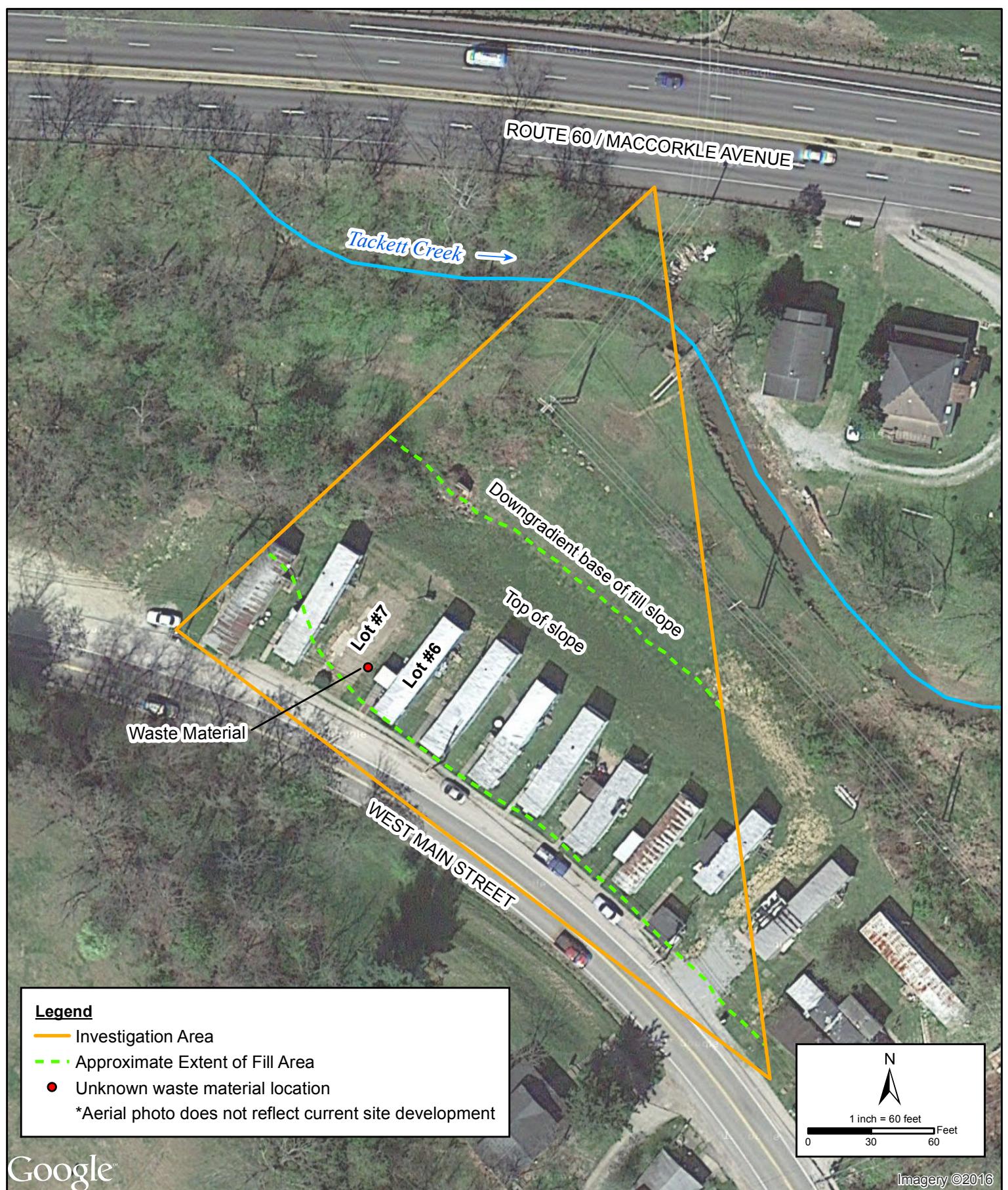
FIGURES



Site Location Map

St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia

DRAWN BY: RP	DES.: 	PROJECT NUMBER: WVDEP-2015-562
CHECKED BY: 	APPROVED: 	FIGURE NUMBER:
DATE: 1/28/2016	REVISED: 	1



Google™

Imagery ©2016

Site Layout Map

St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia

DRAWN BY:
RP

CHECKED BY:

APPROVED:

DATE:

REVISED:

DES.: _____

11/2/2016

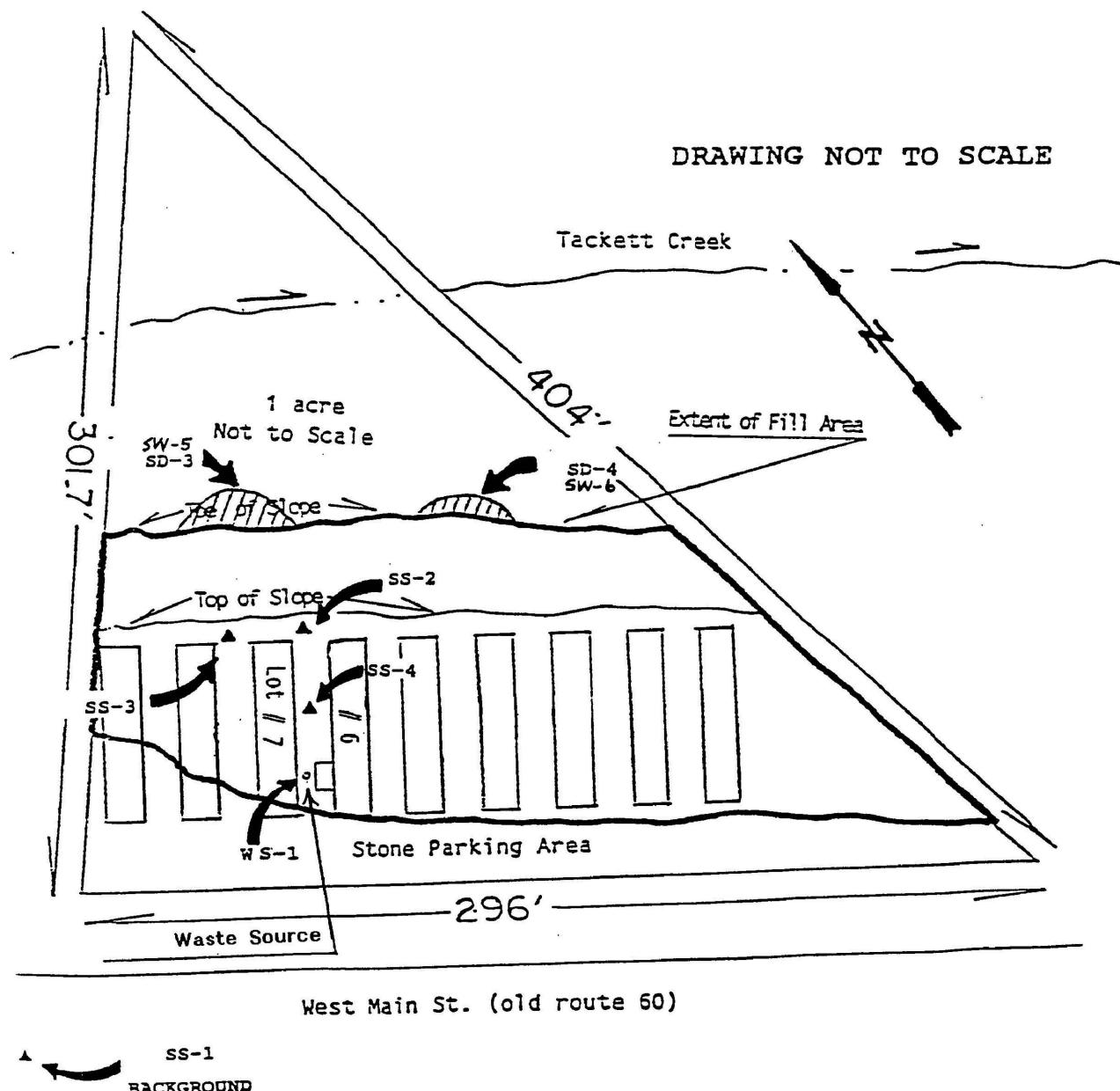
PROJECT NUMBER:
WVDEP-2015-562

FIGURE NUMBER:

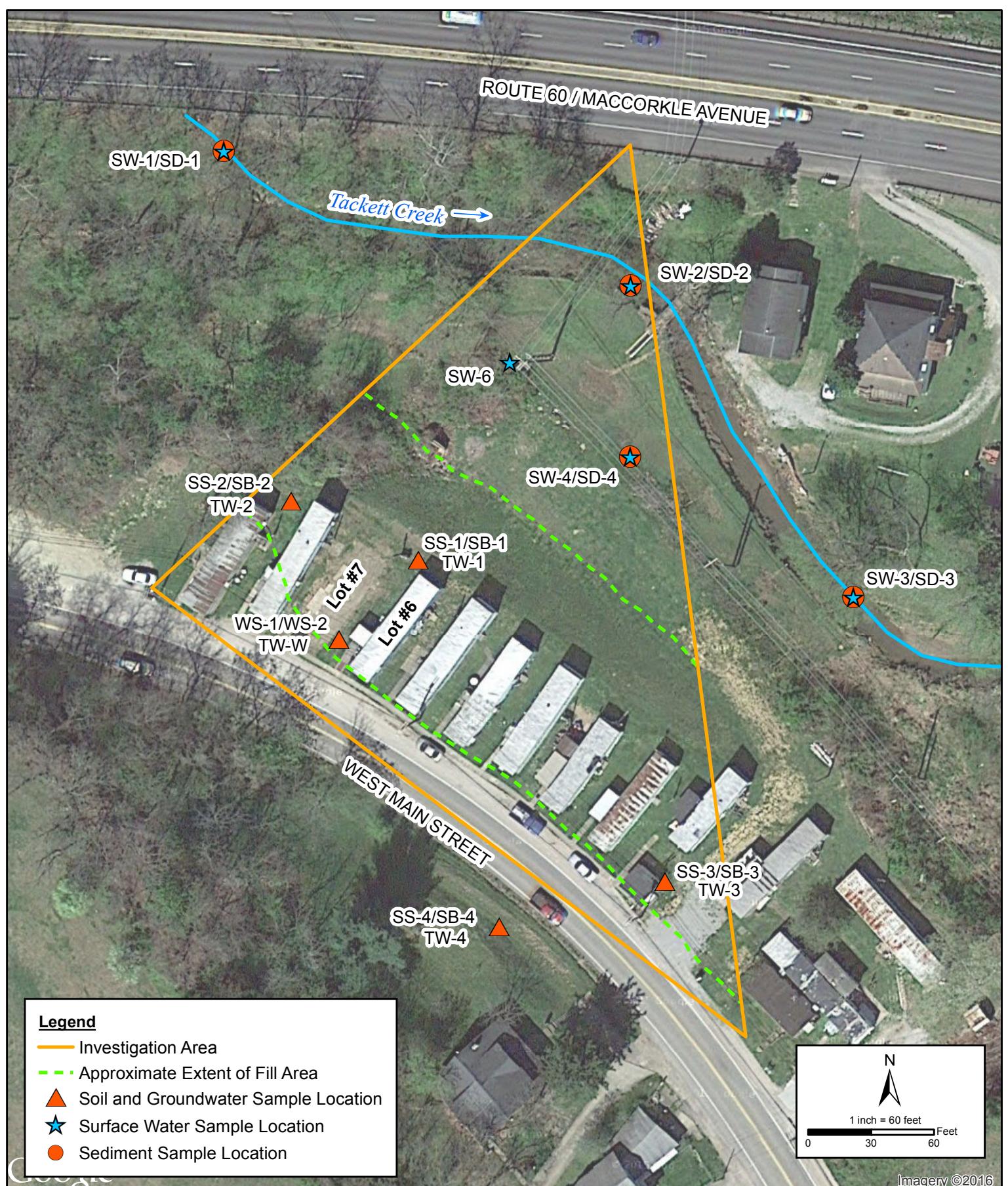
2

SAINT ALBANS TRAILER PARK SITE
SAMPLE LOCATION MAP

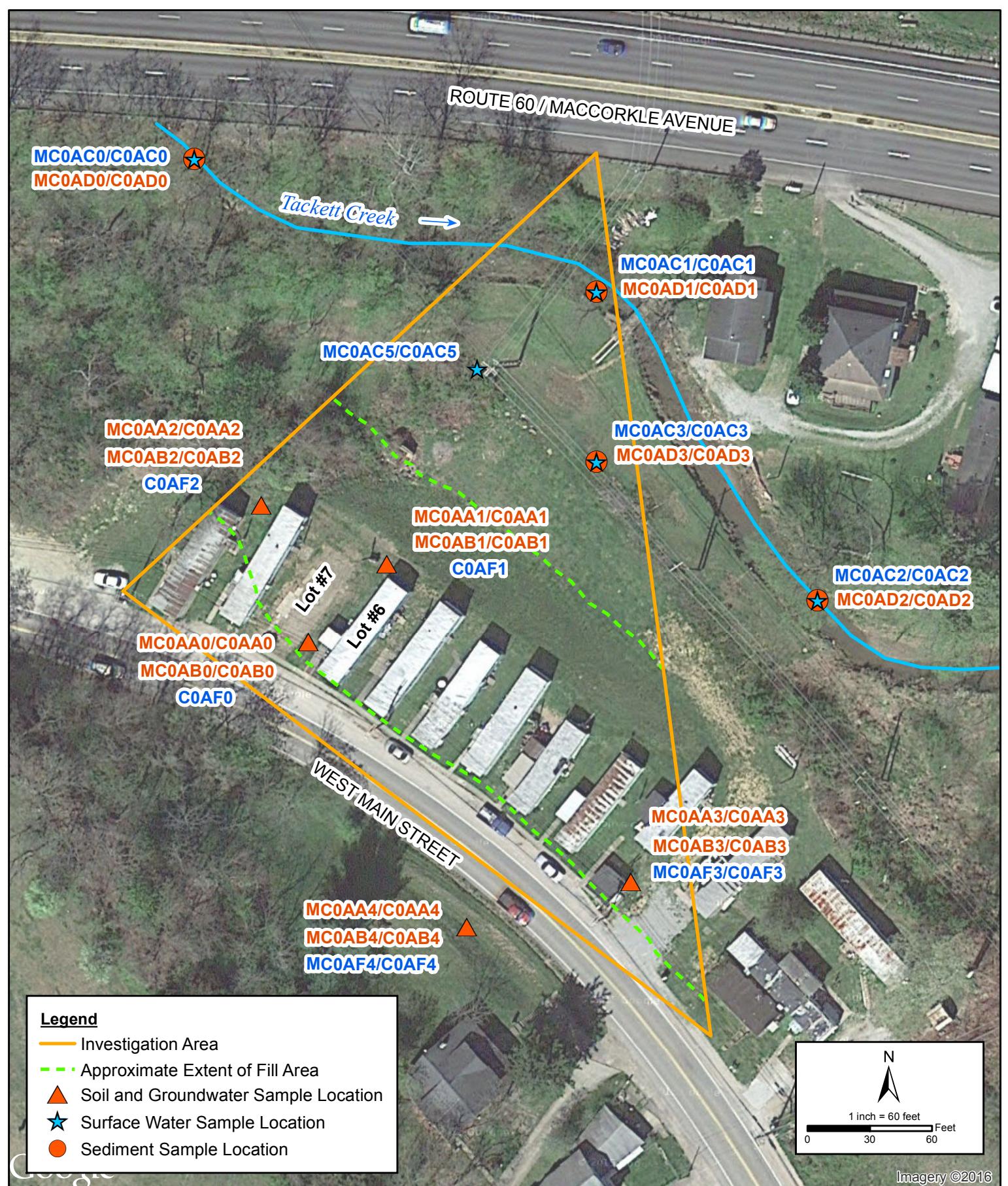
FIGURE 4



64



CORE ENVIRONMENTAL SERVICES, INC. 4 BROOKSTONE PLAZA, MORGANTOWN, WV 26508 T: 304-292-CORE (2673) | F: 304-292-2773 WWW.CORE-ENV.COM	TITLE: Sample Location Map	DRAWN BY:	DES.:	PROJECT NUMBER:
		RP		WVDEP-2015-562
DATE: 11/5/2016	CHECKED BY:	APPROVED:		FIGURE NUMBER:
				4
	REVISED:			



APPENDIX A

CLP REQUEST FORMS



US EPA Region 3 Analytical Request (ARF) 2.0

[EPA Website](#)Date Submitted 8/23/16

Sampling Site Information

Is this a new sampling site? Yes No

Site Name St. Albans Trailer Park				EPA ID (aka CERCLIS No.) WVD988783064		
Street Address 369 West Main Street		City St. Albans			State WV	Zip Code 25177
Division or Office			Site Activity Site Inspection (SI)			
Program Superfund (RAS and/or DAS)	Account Number 2016 T 03W 303DD2 A36AQB00			Spill ID (aka SSID)		Operable Unit

QA Document Information Must be approved prior to sampling. Refer to CIO 2105.0 (formerly 5360.1 A2) for acceptable exceptions.

Title Sampling and Analysis Plan - Saint Albans Trailer Park	Approved by Denise Hight, WVDEP DOD/PA/SI Project Manager	Date 07/20/2016
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Contact Information

EPA Project Lead Charlene Creamer	Phone Number 2158142145	Cell Number 2158142145	Email creamerc.charlene@epa.gov	Contractor NA
Site Leader Lafe Kunkel	Phone Number 3042922673	Cell Number 8624323891	Email lkunkel@core-env.com	
Analytical Request Preparer Rebecca Patton	Phone Number 3042922673	Cell Number 3042900126	Email rpattton@core-env.com	EPA CO/PO NA

Analysis Information

QTY	Matrix	Parameter	Method	Validation Level	Unvalidated Data TAT (number of days)		Final Report Due: # of Days from last sample shipped
					
X 18	Soil	....	Volatile Organic Compounds (VOC)	....	SOM02.3	....	Organic Level 2 (M2) 14 28
X 16	Soil	....	SVOC/PAH	....	SOM02.3	....	Organic Level 2 (M2) 14 28
X 16	Soil	....	SVOC/PAH	....	SOM02.2 SIM	....	Organic Level 2 (M2) 14 28



US EPA Region 3 Analytical Request (ARF) 2.0

[EPA Website](#)

Date Submitted 8/23/16

	QTY	Matrix		Parameter		Method		Validation Level		Unvalidated Data TAT (number of days)		Final Report Due: # of Days from last sample shipped	
X	16	Soil	....	Metals (Total)	....	ISM02.3	....	Inorganic Level 1 (IM1)	....	14	....	28	....
X	9	Ground Water	....	Volatile Organic Compounds (VOC)	....	SOM02.3	....	Organic Level 2 (M2)	....	14	....	28	....
X	8	Ground Water	....	SVOC/PAH	....	SOM02.3	....	Organic Level 2 (M2)	....	14	....	28	....
X	8	Ground Water	....	SVOC/PAH	....	SOM02.2 SIM	....	Organic Level 2 (M2)	....	14	....	28	....
X	8	Ground Water	....	Metals (Total)	....	ISM02.3	....	Inorganic Level 1 (IM1)	....	14	....	28	....
X	9	Surface Water	....	Volatile Organic Compounds (VOC)	....	SOM02.3	....	Organic Level 2 (M2)	....	14	....	28	....
X	8	Surface Water	....	SVOC/PAH	....	SOM02.3	....	Organic Level 2 (M2)	....	14	....	28	....
X	8	Surface Water	....	SVOC/PAH	....	SOM02.2 SIM	....	Organic Level 2 (M2)	....	14	....	28	....
X	8	Surface Water	....	Metals (Total)	....	ISM02.3	....	Inorganic Level 1 (IM1)	....	14	....	28	....
X	9	Sediment	....	Volatile Organic Compounds (VOC)	....	SOM02.3	....	Organic Level 2 (M2)	....	14	....	28	....
X	8	Sediment	....	SVOC/PAH	....	SOM02.3	....	Organic Level 2 (M2)	....	14	....	28	....
X	8	Sediment	....	SVOC/PAH	....	SOM02.2 SIM	....	Organic Level 2 (M2)	....	14	....	28	....



US EPA Region 3 Analytical Request (ARF) 2.0

[EPA Website](#)

Date Submitted 8/23/16

X	8	Sediment	Metals (Total)	ISM02.3	Inorganic Level 1 (IM1)	14	28
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Sample(s) Shipping Dates		Electronic Data Deliverable (EDDs)	Quantitation Limits (QLs), Detection Limits (DLs) are:										
Start Date	End Date		Attached in the Email										
09/20/2016	09/20/2016	Yes											

Special Instructions: Indicate below if any samples are potable or select matrix of "potable" above.

If this will be a reoccurring event, give sampling details. Note: only one ARF is needed per year of sampling.

Add any other descriptive information, including QLs, if not attached.

Project quantitation limits will be sent via email. Sample quantities include all QA/QC samples including trip blank for VOCs.



US EPA Final Laboratory Assignment Report

CT Number: CT8000Date Receipt: 08/23/2016Sample(s) Shipping DatesStart: 09/20/2016End: 09/20/2016ARF Status: IN PROGRESSSite: ST. ALBANS TRAILER PARKSite Activity: SITE INSPECTION (SI)Program: SUPERFUND (RAS
AND/OR DAS)Street: 369 WEST MAIN STREETCity: ST. ALBANSState: WV Zip: 25177Account No: 2016 T 03W 303DD2 A36AQB00SPILL ID: _____ OPERABLE UNIT: 00EPA ID (aka CERCLIS): WVD988783064QA Title: SAMPLING AND ANALYSIS PLAN - SAINT ALBANS TRAILER PARKQA Date Approved: 07/20/16

EPA Project Lead:	CHARLENE CREAMER	Phone:	2158142145	Cell Phone #:	2158142145	E-mail:	CREAMER.CHARLENE@EPA.GOV
Site Leader:	LAFE KUNKEL	Phone:	3042922673	Cell Phone #:	8624323891	E-mail:	LKUNKEL@CORE-ENV.COM
Request Preparer:	REBECCA PATTON	Phone:	3042922673	Cell Phone #:	3042900126	E-mail:	RPATTON@CORE-ENV.COM
Contractor:	NA	EPA CO/PO:	NA				

Special Instructions: PROJECT QUANTATION LIMITS WILL BE SENT VIA EMAIL. SAMPLE QUANTITIES INCLUDE ALL QA/QC SAMPLES INCLUDING TRIP BLANK FOR VOCs.

Comments: INORGANIC ANALYSIS BY ISM02.3, ICP-MS AND DV OF INORGANIC DATA AT IM2 LEVEL, ORGANIC DV AT M3 PER REBECCA PATTON THROUGH JB 8/25/16. JS

DAS	RAS	NSF	Lab Assigned	QTY	Matrix	Parameter	Requested Method	Accepted Method	Validation Level	Unvalidated Data Due	Final Report Due	EDD Required
	46440		PENDING	8	GROUND WATER	METALS (TOTAL)	ISM02.3, ICP-MS	ISM02.3, ICP-MS	IM2	14	28	Y
	46440		PENDING	8	GROUND WATER	SVOC/PAH	SOM02.2 SIM	SOM02.2 SIM	M3	14	28	Y
	46440		PENDING	8	GROUND WATER	SVOC/PAH	SOM02.3	SOM02.3	M3	14	28	Y
	46440		PENDING	8	SEDIMENT	METALS (TOTAL)	ISM02.3, ICP-MS	ISM02.3, ICP-MS	IM2	14	28	Y
	46440		PENDING	8	SEDIMENT	SVOC/PAH	SOM02.2 SIM	SOM02.2 SIM	M3	14	28	Y
	46440		PENDING	8	SEDIMENT	SVOC/PAH	SOM02.3	SOM02.3	M3	14	28	Y
	46440		PENDING	8	SURFACE WATER	METALS (TOTAL)	ISM02.3, ICP-MS	ISM02.3, ICP-MS	IM2	14	28	Y
	46440		PENDING	8	SURFACE WATER	SVOC/PAH	SOM02.2 SIM	SOM02.2 SIM	M3	14	28	Y
	46440		PENDING	8	SURFACE WATER	SVOC/PAH	SOM02.3	SOM02.3	M3	14	28	Y
	46440		PENDING	9	GROUND WATER	VOLATILE ORGANIC COMPOUNDS (VOC)	SOM02.3	SOM02.3	M3	14	28	Y
	46440		PENDING	9	SEDIMENT	VOLATILE ORGANIC COMPOUNDS (VOC)	SOM02.3	SOM02.3	M3	14	28	Y
	46440		PENDING	9	SURFACE WATER	VOLATILE ORGANIC COMPOUNDS (VOC)	SOM02.3	SOM02.3	M3	14	28	Y



US EPA Final Laboratory Assignment Report

CT Number: CT8000Date Receipt: 08/23/2016**Sample(s) Shipping Dates**Start: 09/20/2016End: 09/20/2016ARF Status: IN PROGRESS

DAS	RAS	NSF	Lab Assigned	QTY	Matrix	Parameter	Requested Method	Accepted Method	Validation Level	Unvalidated Data Due	Final Report Due	EDD Required
	46440		PENDING	16	SOIL	METALS (TOTAL)	ISM02.3	ISM02.3	IM2	14	28	Y
	46440		PENDING	16	SOIL	SVOC/PAH	SOM02.2 SIM	SOM02.2 SIM	M3	14	28	Y
	46440		PENDING	16	SOIL	SVOC/PAH	SOM02.3	SOM02.3	M3	14	28	Y
	46440		PENDING	18	SOIL	VOLATILE ORGANIC COMPOUNDS (VOC)	SOM02.3	SOM02.3	M3	14	28	Y

Analytical Services Request Regional Notification

EPA Region 3 - Case # 46440

General Information

Sampling Company: Core Environmental Services, Inc
Sampling Contact Name: Rebecca Patton
Sampling Contact Email: rpatton@core-env.com
Sampling Contact Number: 304-292-2673
Proposed Shipping Start Date: 10/11/2016
Proposed Shipping End Date: 10/14/2016

Project Information

Project Name: ST. ALBANS TRAILER PARK Project
EPA Project Number: 8000
EPA Account Number: 2016 T 03W 303DD2 A36AQB00
Site Spill ID: A6A
Site Name: ST. ALBANS TRAILER PARK
Site City: ST. ALBANS
Site State: WV
Cerclis: WVD988783064
Operable Unit: 00
Purpose: Remedial Investigation
Activity Code: LA
Special Funding: N

Additional Information

Preliminary Results Email:

General Comments: 10/4-Added 8 sediment samples to CHX.
9/15- Sol 2876 awarded to ALS. New site approved and added.
9/9-Region confirmed OU.
8/29-Per Region 3, MAs 2521.1 and 2520.1 will be used.
Request for unvalidated data in 14 days, Lvl-2 Validated data for both Inorganic and Organic analyses./EDDs in R3 EDD Format.

9/12 - Sample shipping end date changed from 9/21 to 9/23 at the request of Rebecca Patton.

9/15 - Sample shipping schedule change from 9/20 - 9/23 to 10/11 - 10/14.

Scheduling Information

CHEMTEX - Port Arthur, TX

3082 25th St
Port Arthur, TX 77642

Phone Number: 409-983-4575

Laboratory Contact: Dr. C.N. Reddy
409-983-4575
cnr@chemtexas.com

Sample Custodian: Jeevan Yeddula
409-983-4575
jeevan@chemtexas.com

Statement(s) of Work: ISM02.3

# of Samples	Matrix	Analysis	T A T	Sol. #	MA Number	Lab Del.	P R	Ship Period
16	Water	ICP-MS 11+ Metals: Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Sb, Se, Ti, V, Zn	21	None	None	3	N	10/11/2016 - 10/14/2016
16	Soil	ICP-MS 11+ Metals: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Sb, Se, Ti, V, Zn	21	None	None	3	N	10/11/2016 - 10/14/2016
8	Sediment	ICP-MS 11+ Metals: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Sb, Se, Ti, V, Zn	21	None	None	3	N	10/11/2016 - 10/14/2016

Scheduling Information

ALS Laboratory Group - Salt Lake City

960 West LeVoy Drive
Salt Lake City, UT 84123

Phone Number: 801-266-7700

Laboratory Contact: Roxy Olson
801-266-7700 (ext 314)

Roxanne.Olson@ALSGlobal.com

Sample Custodian: Meredith Edwards
801-266-7700
Meredith.D.Edwards@ALSGlobal.com

Statement(s) of Work: SOM02.3

# of Samples	Matrix	Analysis	T A T	Sol. #	MA Number	Lab Del.	P R	Ship Period
16	Water	Semivolatiles	21	2876	2520.2	3	N	10/11/2016 - 10/14/2016
16	Water	Semivolatiles by SIM	21	2876	2521.2	3	N	10/11/2016 - 10/14/2016
16	Soil	PAH	21	2876	None	3	N	10/11/2016 - 10/14/2016
8	Sediment	PAH	21	2876	None	3	N	10/11/2016 - 10/14/2016
16	Soil	PAH SIM	21	2876	None	3	N	10/11/2016 - 10/14/2016
8	Sediment	PAH SIM	21	2876	None	3	N	10/11/2016 - 10/14/2016
9	Sediment	Volatiles	21	2876	None	3	N	10/11/2016 - 10/14/2016
18	Soil	Volatiles	21	2876	None	3	N	10/11/2016 - 10/14/2016
18	Water	Volatiles	21	2876	None	3	N	10/11/2016 - 10/14/2016

APPENDIX B

CERTIFICATES OF COMPLIANCE

QUALITY CERTIFIED™

Certificate of Compliance

The enclosed containers have been chemically cleaned by using the specified USEPA cleaning procedures for low level chemical analysis. Representative containers have been tested by independent certified laboratories for their appropriate use. ESS containers meet and exceed the required detection limits established by the USEPA in SPECIFICATIONS AND GUIDANCE FOR CONTAMINANT-FREE SAMPLE CONTAINERS (OSWER Directive #9240.0-05A).

EXTRACTABLE ORGANIC COMPOUNDS (PROCEDURE 1)

Analyte	Quantitation Limit (ug/L)	Gamma-Chlordane	<0.005	Hexachloroethane	<1	2,6-Dinitrotoluene	<1	Butylbenzylphthalate	<1
PESTICIDES/PCB'S									
Alpha-BHC	<0.005	Aroclor-1016	<0.2	Nitrobenzene	<1	3-Nitroaniline	<1	1,2'-Dichlorobenzene	<1
Beta-BHC	<0.005	Aroclor-1221	<0.2	Isophorone	<1	Acenaphthene	<0.2	1,3'-Dichlorobenzene	<1
Delta-BHC	<0.005	Aroclor-1232	<0.2	2-Nitrophenol	<1	2,4-Dinitrophenol	<5	1,4'-Dichlorobenzene	<1
Gamma-BHC (Lindane)	<0.005	Aroclor-1248	<0.2	2,4-Dimethylphenol	<1	4-Nitrophenol	<5	3,3'-Dichlorobenzidine	<1
Heptachlor	<0.005	Aroclor-1254	<0.2	bis-(2-Chloroethoxy) methane	<1	Dibenzofuran	<1	Benz[a]anthracene	<0.15
Aldrin	<0.005	Aroclor-1260	<0.2	2,4-Dichlorophenol	<1	2,4-Dinitrotoluene	<1	Chrysene	<0.1
Heptachlor Epoxide	<0.005	Aroclor-1262	<0.2	1,2,4-Trichlorobenzene	<1	Diethylphthalate	<1	bis-(2-Ethylhexyl) Phthalate	<1
Endosulfan I	<0.005	Aroclor-1268	<0.2	Naphthalene	<0.2	4-Chlorophenyl-Phenylether	<1	Di-n-Octylphthalate	<1
Dieldrin	<0.005			4-Chloroaniline	<1	Florene	<0.15	Benz[b]fluoranthene	<0.2
4,4'-DDE	<0.005			Hexachlorobutadiene	<1	4-Nitroaniline	<1.5	Benz[k]fluoranthene	<0.15
Endrin	<0.005			4-Chloro-3-Methylphenol	<1	4,6-Dinitro-2-Methyphenol	<1	Benz[a]pyrene	<0.15
Endosulfan II	<0.005			2-Methylnaphthalene	<0.2	N-Nitrosodiphenylamine	<1	Indeno[1,2,3-cd]pyrene	<0.2
4,4'-DDD	<0.005			2,4,6-Trichlorophenol	<1	N-Nitrosodimethylamine	<1	Dibenzo[a,h]anthracene	<0.15
Endosulfan Sulfate	<0.005			2,4,5-Trichlorophenol	<1	4-Bromophenyl-Phenylether	<1	Benzog,h,i]perylene	<0.15
4,4'-DDT	<0.005			2-Chlorophenol	<1	Hexachlorobenzene	<1	Benzoic Acid	<5
Methoxychlor	<0.005			2-Methylphenol	<1	Pentachlorophenol	<1	Benzyl Alcohol	<1
Endrin Ketone	<0.005			2,2'-Oxybis-	<1	Carbazole	<1	Oil and Grease	<5000
Endrin Aldehyde	<0.005			(1-Chloropropane)	<1	2-Chloronaphthalene	<0.15	TPH Diesel	<50.00
Alpha-Chlordane	<0.005			2-Nitroaniline	<1	Anthracene	<0.1		
				Dimethylphthalate	<1	Di-n-Butylphthalate	<0.2		
				Nitroaniline	<1	Fluoroanthene	<0.1		
				Acenaphthylene	<0.2	Pyrene	<0.15		

PURGEABLE VOLATILE ORGANIC COMPOUNDS (PROCEDURE 2)

Analyte	Quantitation Limit (ug/L)	Chlorobenzene	<0.1	1,1-Dichloroethane	<0.1	4-Isopropyltoluene	<0.1	Trichlorotrifluoroethane	<0.1
Acetone	<2.0	Chloroethane	<0.1	1,2-Dichloroethane	<0.1	Methylene Chloride	<0.5	1,2,3-Trichloropropane	<0.1
Benzene	<0.1	Chloromethane	<0.1	1,1-Dichloroethene	<0.1	Naphthalene	<0.5	1,2,3-Trimethylbenzene	<0.1
Bromoform	<0.1	2-Chlorotoluene	<0.1	cis-1,2-Dichloroethene	<0.1	Propylbenzene	<0.1	1,2,4-Trimethylbenzene	<0.1
Bromobenzene	<0.1	4-Chlorotoluene	<0.1	trans-1,2-Dichloroethene	<0.1	Styrene	<0.1	1,3,5-Trimethylbenzene	<0.1
Bromoform	<0.1	2,4-Chlorotoluene	<0.2	1,2-Dichloropropane	<0.1	1,1,1,2-Tetrachloroethane	<0.1	Vinyl Acetate	<0.5
Bromochloromethane	<0.1	Chloroform	<0.1	1,3-Dichloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	Vinyl Chloride	<0.1
Bromodichloromethane	<0.1	Bromomethane	<0.1	2,2-Dichloropropane	<0.1	Tetrachloroethene	<0.1	Methyl-Tert-Butyl-Ether	<0.1
Bromomethane	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1-Dichloropropene	<0.1	Toluene	<0.1	4-Methyl-2-pentanone	<0.5
z-Butylbenzene	<0.1	Dibromochloromethane	<0.1	cis-1,3-Dichloropropene	<0.1	1,2,3-Trichlorobenzene	<0.1	ethyl-tert-butylether	<0.1
n-Butylbenzene	<0.1	1,2-Dibromoethane (EDB)	<0.1	trans-1,3-Dichloropropene	<0.1	1,2,4-Trichlorobenzene	<0.1	tert-amylymethylether	<0.1
sec-Butylbenzene	<0.1	1,2-Dichlorobenzene	<0.1	Ethylbenzene	<0.1	1,1,1-Trichloroethane	<0.1	diisopropylether	<0.1
tert-Butylbenzene	<0.1	1,3-Dichlorobenzene	<0.1	2-Hexanone	<0.5	1,1,2-Trichloroethane	<0.1	tert-butanol	<0.1
Carbon Tetrachloride	<0.1	1,4-Dichlorobenzene	<0.1	Hexachlorobutadiene	<0.1	Trichloroethene	<0.1	o-xylene	<0.1
Carbon Disulfide	<0.1	Dichlorodifluoromethane	<0.1	Isopropylbenzene	<0.1	Trichlorofluoromethane	<0.1	m-xylene(1)	<0.2
								p-xylene(1)	<0.2
								TPH as Gasoline	<50.00

METALS & SULFIDE COMPOUNDS (PROCEDURE 3)

Analyte	Detection Limit (ug/L)	Barium	<0.03	Iron	<3	Molybdenum	<0.5	Sodium	<6
Beryllium	<0.01	Cadmium	<0.03	Lead	<0.05	Nickel	<0.05	Thallium	<0.09
Aluminum	<0.5	Chromium	<0.06	Magnesium	<4	Potassium	<50	Zinc	<0.3
Antimony	<0.03	Copper	<0.08	Manganese	<0.1	Selenium	<0.5	Fluoride	<100
Arsenic	<0.01			Mercury	<0.2	Silver	<0.02	Nitrate + Nitrite	<50

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ON-TIME PRODUCTS FOR ENVIRONMENTAL SAMPLING & ANALYSIS



ESS PRODUCT NUMBER 1000-1901-QC
PRODUCT LOT NUMBER 0113901B

For more information on our cleaning & monitoring procedures, please call

1-800-233-8425

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EXTRACTABLE ORGANIC COMPOUNDS (PROCEDURE 1)

Analyte	Quantitation Limit (ug/L)	Gamma-Chlordane	<0.005	Hexachloroethane	<1	2,6-Dinitrotoluene	<1	Butylbenzylphthalate	<1
PESTICIDES/PCB'S									
Alpha-BHC	<0.005	Aroclor-1016	<0.2	Nitrobenzene	<1	3-Nitroaniline	<1	1,2'-Dichlorobenzene	<1
Beta-BHC	<0.005	Aroclor-1221	<0.2	Isophorone	<1	Acenaphthene	<0.2	1,3'-Dichlorobenzene	<1
Delta-BHC	<0.005	Aroclor-1232	<0.2	2-Nitrophenol	<1	2,4-Dinitrophenol	<5	1,4'-Dichlorobenzene	<1
Gamma-BHC (Lindane)	<0.005	Aroclor-1248	<0.2	2,4-Dimethylphenol	<1	4-Nitrophenol	<5	3,3'-Dichlorobenzidine	<1
Heptachlor	<0.005	Aroclor-1254	<0.2	bis-(2-Chloroethoxy) methane	<1	Dibenzofuran	<1	Benz[a]anthracene	<0.15
Aldrin	<0.005	Aroclor-1260	<0.2	2,4-Dichlorophenol	<1	2,4-Dinitrotoluene	<1	Chrysene	<0.1
Heptachlor Epoxide	<0.005	Aroclor-1262	<0.2	1,2,4-Trichlorobenzene	<1	Diethylphthalate	<1	bis-(2-Ethylhexyl) Phthalate	<1
Endosulfan I	<0.005	Aroclor-1268	<0.2	Naphthalene	<0.2	4-Chlorophenyl-Phenylether	<1	Di-n-Octylphthalate	<1
Dieldrin	<0.005			4-Chloroaniline	<1	Florene	<0.15	Benz[b]fluoranthene	<0.2
4,4'-DDE	<0.005			Hexachlorobutadiene	<1	4-Nitroaniline	<1.5	Benz[k]fluoranthene	<0.15
Endrin	<0.005			4-Chloro-3-Methylphenol	<1	4,6-Dinitro-2-Methyphenol	<1	Benz[a]pyrene	<0.15
Endosulfan II	<0.005			2-Methylnaphthalene	<0.2	N-Nitrosodiphenylamine	<1	Indeno[1,2,3-cd]pyrene	<0.2
4,4'-DDD	<0.005			2,4,6-Trichlorophenol	<1	N-Nitrosodimethylamine	<1	Dibenzo[a,h]anthracene	<0.15
Endosulfan Sulfate	<0.005			2,4,5-Trichlorophenol	<1	4-Bromophenyl-Phenylether	<1	Benzog,h,i]perylene	<0.15
4,4'-DDT	<0.005			2-Chlorophenol	<1	Hexachlorobenzene	<1	Benzoic Acid	<5
Methoxychlor	<0.005			2-Methylphenol	<1	Pentachlorophenol	<1	Benzyl Alcohol	<1
Endrin Ketone	<0.005			2,2'-Oxybis-		Carbazole	<1	Oil and Grease	<5000
Endrin Aldehyde	<0.005			(1-Chloropropane)	<1	2-Chloronaphthalene	<0.15	TPH Diesel	<50.00
Alpha-Chlordane	<0.005			2-Nitroaniline	<1	Anthracene	<0.1		
				Dimethylphthalate	<1	Di-n-Butylphthalate	<0.2		
				Nitroaniline	<1	Fluoroanthene	<0.1		
				Acenaphthylene	<0.2	Pyrene	<0.15		

PURGEABLE VOLATILE ORGANIC COMPOUNDS (PROCEDURE 2)

Analyte	Quantitation Limit (ug/L)	Chlorobenzene	<0.1	1,1-Dichloroethane	<0.1	4-Isopropyltoluene	<0.1	Trichlorotrifluoroethane	<0.1
Acetone	<2.0	Chloroethane	<0.1	1,2-Dichloroethane	<0.1	Methylene Chloride	<0.5	1,2,3-Trichloropropane	<0.1
Benzene	<0.1	Chloromethane	<0.1	1,1-Dichloroethene	<0.1	Naphthalene	<0.5	1,2,3-Trimethylbenzene	<0.1
Bromoform	<0.1	2-Chlorotoluene	<0.1	cis-1,2-Dichloroethene	<0.1	Propylbenzene	<0.1	1,2,4-Trimethylbenzene	<0.1
Bromobenzene	<0.1	4-Chlorotoluene	<0.1	trans-1,2-Dichloroethene	<0.1	Styrene	<0.1	1,3,5-Trimethylbenzene	<0.1
Bromoform	<0.1	2,4-Chlorotoluene	<0.2	1,2-Dichloropropane	<0.1	1,1,1,2-Tetrachloroethane	<0.1	Vinyl Acetate	<0.5
Bromochloromethane	<0.1	Chloroform	<0.1	1,3-Dichloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	Vinyl Chloride	<0.1
Bromodichloromethane	<0.1	Bromomethane	<0.1	2,2-Dichloropropane	<0.1	Tetrachloroethene	<0.1	Methyl-Tert-Butyl-Ether	<0.1
Bromomethane	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1-Dichloropropene	<0.1	Toluene	<0.1	4-Methyl-2-pentanone	<0.5
z-Butylbenzene	<0.1	Dibromochloromethane	<0.1	cis-1,3-Dichloropropene	<0.1	1,2,3-Trichlorobenzene	<0.1	ethyl-tert-butylether	<0.1
n-Butylbenzene	<0.1	1,2-Dibromoethane (EDB)	<0.1	trans-1,3-Dichloropropene	<0.1	1,2,4-Trichlorobenzene	<0.1	tert-amylymethylether	<0.1
sec-Butylbenzene	<0.1	1,2-Dichlorobenzene	<0.1	Ethylbenzene	<0.1	1,1,1-Trichloroethane	<0.1	diisopropylether	<0.1
tert-Butylbenzene	<0.1	1,3-Dichlorobenzene	<0.1	2-Hexanone	<0.5	1,1,2-Trichloroethane	<0.1	tert-butanol	<0.1
Carbon Tetrachloride	<0.1	1,4-Dichlorobenzene	<0.1	Hexachlorobutadiene	<0.1	Trichloroethene	<0.1	o-xylene	<0.1
Carbon Disulfide	<0.1	Dichlorodifluoromethane	<0.1	Isopropylbenzene	<0.1	Trichlorofluoromethane	<0.1	m-xylene(1)	<0.2
								p-xylene(1)	<0.2
								TPH as Gasoline	<50.00

METALS & SULFIDE COMPOUNDS (PROCEDURE 3)

Analyte	Detection Limit (ug/L)	Barium	<0.03	Iron	<3	Molybdenum	<0.5	Sodium	<6
Beryllium	<0.01	Cadmium	<0.03	Lead	<0.05	Nickel	<0.05	Thallium	<0.09
Aluminum	<0.5	Chromium	<0.06	Magnesium	<4	Potassium	<50	Zinc	<0.3
Antimony	<0.03	Chromium	<0.06	Manganese	<0.1	Selenium	<0.5	Fluoride	<100
Arsenic	<0.01	Copper	<0.08	Mercury	<0.2	Silver	<0.02	Nitrate + Nitrite	<50

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ESS PRODUCT NUMBER 0250-0015-QC
PRODUCT LOT NUMBER 0216901B

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EXTRACTABLE ORGANIC COMPOUNDS (PROCEDURE 1)

Analyte	Quantitation Limit (ug/L)	Gamma-Chlordane	<0.005	Hexachloroethane	<1	2,6-Dinitrotoluene	<1	Butylbenzylphthalate	<1
PESTICIDES/PCB'S									
Alpha-BHC	<0.005	Aroclor-1016	<0.2	Nitrobenzene	<1	3-Nitroaniline	<1	1,2'-Dichlorobenzene	<1
Beta-BHC	<0.005	Aroclor-1221	<0.2	Isophorone	<1	Acenaphthene	<0.2	1,3'-Dichlorobenzene	<1
Delta-BHC	<0.005	Aroclor-1232	<0.2	2-Nitrophenol	<1	2,4-Dinitrophenol	<5	1,4'-Dichlorobenzene	<1
Gamma-BHC (Lindane)	<0.005	Aroclor-1248	<0.2	2,4-Dimethylphenol	<1	4-Nitrophenol	<5	3,3'-Dichlorobenzidine	<1
Heptachlor	<0.005	Aroclor-1254	<0.2	bis-(2-Chloroethoxy) methane	<1	Dibenzofuran	<1	Benz[a]anthracene	<0.15
Aldrin	<0.005	Aroclor-1260	<0.2	2,4-Dichlorophenol	<1	2,4-Dinitrotoluene	<1	Chrysene	<0.1
Heptachlor Epoxide	<0.005	Aroclor-1262	<0.2	1,2,4-Trichlorobenzene	<1	Diethylphthalate	<1	bis-(2-Ethylhexyl) Phthalate	<1
Endosulfan I	<0.005	Aroclor-1268	<0.2	Naphthalene	<0.2	4-Chlorophenyl-Phenylether	<1	Di-n-Octylphthalate	<1
Dieldrin	<0.005			4-Chloroaniline	<1	Florene	<0.15	Benz[b]fluoranthene	<0.2
4,4'-DDE	<0.005			Hexachlorobutadiene	<1	4-Nitroaniline	<1.5	Benz[k]fluoranthene	<0.15
Endrin	<0.005			4-Chloro-3-Methylphenol	<1	4,6-Dinitro-2-Methyphenol	<1	Benz[a]pyrene	<0.15
Endosulfan II	<0.005			2-Methylnaphthalene	<0.2	N-Nitrosodiphenylamine	<1	Indeno[1,2,3-cd]pyrene	<0.2
4,4'-DDD	<0.005			2,4,6-Trichlorophenol	<1	N-Nitrosodimethylamine	<1	Dibenzo[a,h]anthracene	<0.15
Endosulfan Sulfate	<0.005			2,4,5-Trichlorophenol	<1	4-Bromophenyl-Phenylether	<1	Benzog,h,i]perylene	<0.15
4,4'-DDT	<0.005			2-Chlorophenol	<1	Hexachlorobenzene	<1	Benzoic Acid	<5
Methoxychlor	<0.005			2-Methylphenol	<1	Pentachlorophenol	<1	Benzyl Alcohol	<1
Endrin Ketone	<0.005			2,2'-Oxybis-		Carbazole	<1	Oil and Grease	<5000
Endrin Aldehyde	<0.005			(1-Chloropropane)	<1	2-Chloronaphthalene	<0.15	TPH Diesel	<50.00
Alpha-Chlordane	<0.005			2-Nitroaniline	<1	Anthracene	<0.1		
				Dimethylphthalate	<1	Di-n-Butylphthalate	<0.2		
				Nitroaniline	<1	Fluoroanthene	<0.1		
				Acenaphthylene	<0.2	Pyrene	<0.15		

PURGEABLE VOLATILE ORGANIC COMPOUNDS (PROCEDURE 2)

Analyte	Quantitation Limit (ug/L)	Chlorobenzene	<0.1	1,1-Dichloroethane	<0.1	4-Isopropyltoluene	<0.1	Trichlorotrifluoroethane	<0.1
Acetone	<2.0	Chloroethane	<0.1	1,2-Dichloroethane	<0.1	Methylene Chloride	<0.5	1,2,3-Trichloropropane	<0.1
Benzene	<0.1	Chloromethane	<0.1	1,1-Dichloroethene	<0.1	Naphthalene	<0.5	1,2,3-Trimethylbenzene	<0.1
Bromoform	<0.1	2-Chlorotoluene	<0.1	cis-1,2-Dichloroethene	<0.1	Propylbenzene	<0.1	1,2,4-Trimethylbenzene	<0.1
Bromobenzene	<0.1	4-Chlorotoluene	<0.1	trans-1,2-Dichloroethene	<0.1	Styrene	<0.1	1,3,5-Trimethylbenzene	<0.1
Bromoform	<0.1	2,4-Chlorotoluene	<0.2	1,2-Dichloropropane	<0.1	1,1,1,2-Tetrachloroethane	<0.1	Vinyl Acetate	<0.5
Bromochloromethane	<0.1	Chloroform	<0.1	1,3-Dichloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	Vinyl Chloride	<0.1
Bromodichloromethane	<0.1	Bromomethane	<0.1	2,2-Dichloropropane	<0.1	Tetrachloroethene	<0.1	Methyl-Tert-Butyl-Ether	<0.1
Bromomethane	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1-Dichloropropene	<0.1	Toluene	<0.1	4-Methyl-2-pentanone	<0.5
z-Butylbenzene	<0.1	Dibromochloromethane	<0.1	cis-1,3-Dichloropropene	<0.1	1,2,3-Trichlorobenzene	<0.1	ethyl-tert-butylether	<0.1
n-Butylbenzene	<0.1	1,2-Dibromoethane (EDB)	<0.1	trans-1,3-Dichloropropene	<0.1	1,2,4-Trichlorobenzene	<0.1	tert-amylymethylether	<0.1
sec-Butylbenzene	<0.1	1,2-Dichlorobenzene	<0.1	Ethylbenzene	<0.1	1,1,1-Trichloroethane	<0.1	diisopropylether	<0.1
tert-Butylbenzene	<0.1	1,3-Dichlorobenzene	<0.1	2-Hexanone	<0.5	1,1,2-Trichloroethane	<0.1	tert-butanol	<0.1
Carbon Tetrachloride	<0.1	1,4-Dichlorobenzene	<0.1	Hexachlorobutadiene	<0.1	Trichloroethene	<0.1	o-xylene	<0.1
Carbon Disulfide	<0.1	Dichlorodifluoromethane	<0.1	Isopropylbenzene	<0.1	Trichlorofluoromethane	<0.1	m-xylene(1)	<0.2
								p-xylene(1)	<0.2
								TPH as Gasoline	<50.00

METALS & SULFIDE COMPOUNDS (PROCEDURE 3)

Analyte	Detection Limit (ug/L)	Barium	<0.03	Iron	<3	Molybdenum	<0.5	Sodium	<6
Beryllium	<0.01	Cadmium	<0.03	Lead	<0.05	Nickel	<0.05	Thallium	<0.09
Aluminum	<0.5	Chromium	<0.06	Magnesium	<4	Potassium	<50	Zinc	<0.3
Antimony	<0.03	Chromium	<0.06	Manganese	<0.1	Selenium	<0.5	Fluoride	<100
Arsenic	<0.01	Copper	<0.08	Mercury	<0.2	Silver	<0.02	Nitrate + Nitrite	<50

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ON-TIME PRODUCTS FOR ENVIRONMENTAL SAMPLING & ANALYSIS



ESS PRODUCT NUMBER 4050-0300-QC
PRODUCT LOT NUMBER 0217601A

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EXTRACTABLE ORGANIC COMPOUNDS (PROCEDURE 1)

Analyte	Quantitation Limit (ug/L)	Gamma-Chlordane	<0.005	Hexachloroethane	<1	2,6-Dinitrotoluene	<1	Butylbenzylphthalate	<1
PESTICIDES/PCB'S									
Alpha-BHC	<0.005	Aroclor-1016	<0.2	Nitrobenzene	<1	3-Nitroaniline	<1	1,2'-Dichlorobenzene	<1
Beta-BHC	<0.005	Aroclor-1221	<0.2	Isophorone	<1	Acenaphthene	<0.2	1,3'-Dichlorobenzene	<1
Delta-BHC	<0.005	Aroclor-1232	<0.2	2-Nitrophenol	<1	2,4-Dinitrophenol	<5	1,4'-Dichlorobenzene	<1
Gamma-BHC (Lindane)	<0.005	Aroclor-1248	<0.2	2,4-Dimethylphenol	<1	4-Nitrophenol	<5	3,3'-Dichlorobenzidine	<1
Heptachlor	<0.005	Aroclor-1254	<0.2	bis-(2-Chloroethoxy) methane	<1	Dibenzofuran	<1	Benz[a]anthracene	<0.15
Aldrin	<0.005	Aroclor-1260	<0.2	2,4-Dichlorophenol	<1	2,4-Dinitrotoluene	<1	Chrysene	<0.1
Heptachlor Epoxide	<0.005	Aroclor-1262	<0.2	1,2,4-Trichlorobenzene	<1	Diethylphthalate	<1	bis-(2-Ethylhexyl) Phthalate	<1
Endosulfan I	<0.005	Aroclor-1268	<0.2	Naphthalene	<0.2	4-Chlorophenyl-Phenylether	<1	Di-n-Octylphthalate	<1
Dieldrin	<0.005			4-Chloroaniline	<1	Florene	<0.15	Benz[b]fluoranthene	<0.2
4,4'-DDE	<0.005			Hexachlorobutadiene	<1	4-Nitroaniline	<1.5	Benz[k]fluoranthene	<0.15
Endrin	<0.005			4-Chloro-3-Methylphenol	<1	4,6-Dinitro-2-Methyphenol	<1	Benz[a]pyrene	<0.15
Endosulfan II	<0.005			2-Methylnaphthalene	<0.2	N-Nitrosodiphenylamine	<1	Indeno[1,2,3-cd]pyrene	<0.2
4,4'-DDD	<0.005			2,4,6-Trichlorophenol	<1	N-Nitrosodimethylamine	<1	Dibenzo[a,h]anthracene	<0.15
Endosulfan Sulfate	<0.005			2,4,5-Trichlorophenol	<1	4-Bromophenyl-Phenylether	<1	Benzog,h,i]perylene	<0.15
4,4'-DDT	<0.005			2-Chlorophenol	<1	Hexachlorobenzene	<1	Benzoic Acid	<5
Methoxychlor	<0.005			2-Methylphenol	<1	Pentachlorophenol	<1	Benzyl Alcohol	<1
Endrin Ketone	<0.005			2,2'-Oxybis-		Carbazole	<1	Oil and Grease	<5000
Endrin Aldehyde	<0.005			(1-Chloropropane)	<1	2-Chloronaphthalene	<0.15	TPH Diesel	<50.00
Alpha-Chlordane	<0.005			2-Nitroaniline	<1	Anthracene	<0.1		
				Dimethylphthalate	<1	Di-n-Butylphthalate	<0.2		
				Nitroaniline	<1	Fluoroanthene	<0.1		
				Acenaphthylene	<0.2	Pyrene	<0.15		

PURGEABLE VOLATILE ORGANIC COMPOUNDS (PROCEDURE 2)

Analyte	Quantitation Limit (ug/L)	Chlorobenzene	<0.1	1,1-Dichloroethane	<0.1	4-Isopropyltoluene	<0.1	Trichlorotrifluoroethane	<0.1
Acetone	<2.0	Chloroethane	<0.1	1,2-Dichloroethane	<0.1	Methylene Chloride	<0.5	1,2,3-Trichloropropane	<0.1
Benzene	<0.1	Chloromethane	<0.1	1,1-Dichloroethene	<0.1	Naphthalene	<0.5	1,2,3-Trimethylbenzene	<0.1
Bromoform	<0.1	2-Chlorotoluene	<0.1	cis-1,2-Dichloroethene	<0.1	Propylbenzene	<0.1	1,2,4-Trimethylbenzene	<0.1
Bromobenzene	<0.1	4-Chlorotoluene	<0.1	trans-1,2-Dichloroethene	<0.1	Styrene	<0.1	1,3,5-Trimethylbenzene	<0.1
Bromoform	<0.1	2,4-Chlorotoluene	<0.2	1,2-Dichloropropane	<0.1	1,1,1,2-Tetrachloroethane	<0.1	Vinyl Acetate	<0.5
Bromochloromethane	<0.1	Chloroform	<0.1	1,3-Dichloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	Vinyl Chloride	<0.1
Bromodichloromethane	<0.1	Bromomethane	<0.1	2,2-Dichloropropane	<0.1	Tetrachloroethene	<0.1	Methyl-Tert-Butyl-Ether	<0.1
Bromomethane	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1-Dichloropropene	<0.1	Toluene	<0.1	4-Methyl-2-pentanone	<0.5
z-Butylbenzene	<0.1	Dibromochloromethane	<0.1	cis-1,3-Dichloropropene	<0.1	1,2,3-Trichlorobenzene	<0.1	ethyl-tert-butylether	<0.1
n-Butylbenzene	<0.1	1,2-Dibromoethane (EDB)	<0.1	trans-1,3-Dichloropropene	<0.1	1,2,4-Trichlorobenzene	<0.1	tert-amylymethylether	<0.1
sec-Butylbenzene	<0.1	1,2-Dichlorobenzene	<0.1	Ethylbenzene	<0.1	1,1,1-Trichloroethane	<0.1	diisopropylether	<0.1
tert-Butylbenzene	<0.1	1,3-Dichlorobenzene	<0.1	2-Hexanone	<0.5	1,1,2-Trichloroethane	<0.1	tert-butanol	<0.1
Carbon Tetrachloride	<0.1	1,4-Dichlorobenzene	<0.1	Hexachlorobutadiene	<0.1	Trichloroethene	<0.1	o-xylene	<0.1
Carbon Disulfide	<0.1	Dichlorodifluoromethane	<0.1	Isopropylbenzene	<0.1	Trichlorofluoromethane	<0.1	m-xylene(1)	<0.2
								p-xylene(1)	<0.2
								TPH as Gasoline	<50.00

METALS & SULFIDE COMPOUNDS (PROCEDURE 3)

Analyte	Detection Limit (ug/L)	Barium	<0.03	Iron	<3	Molybdenum	<0.5	Sodium	<6
Beryllium	<0.01	Cadmium	<0.03	Lead	<0.05	Nickel	<0.05	Thallium	<0.09
Aluminum	<0.5	Chromium	<0.06	Magnesium	<4	Potassium	<50	Zinc	<0.3
Antimony	<0.03	Chromium	<0.06	Manganese	<0.1	Selenium	<0.5	Fluoride	<100
Arsenic	<0.01	Copper	<0.08	Mercury	<0.2	Silver	<0.02	Nitrate + Nitrite	<50

This certificate only applies to the enclosed containers and not to any added preservative (except HCL vials). ESS uses only Analytical Grade chemicals. All ESS PrePreserved® containers include a case label with the reagent manufacturer and their lot number. Chemical C of A's can be found online using their lot number. For additional assistance or questions, call 800 233-8424 or email at: essorders@essvial.com.

ON-TIME PRODUCTS FOR ENVIRONMENTAL SAMPLING & ANALYSIS



ESS PRODUCT NUMBER 0950-0050-QC
PRODUCT LOT NUMBER 0204101B

For more information on our cleaning & monitoring procedures, please call

1-800-233-8425

www.essvial.com



Quality Environmental Containers

C-QEC

CERTIFICATE OF QUALITY ENVIRONMENTAL COMPLIANCE

P.O. Box 1160 • Beaver, WV 25813 • 800-255-3950 • 304-255-3900

Lot Number

F-6-175-02AB

9 oz. Clear Jar 2114-0009

The above lot number has been specially cleaned using procedures specified by the USEPA to limit the concentration of the following organic compounds:

Compound	CRQL ($\mu\text{g/L}$)	Compound	CRQL ($\mu\text{g/L}$)
Phenol	5	2,4-Dinitrophenol	20
bis-(2-Chloroethyl)ether	5	4-Nitrophenol	20
2-Chlorophenol	5	Dibenzofuran	5
2-Methylphenol	5	2,4-Dinitrotoluene	5
2,2'-oxybis-(1-Chloropropane)	5	Diethylphthalate	5
4-Methylphenol	5	4-Chlorophenyl-phenylether	5
N-Nitroso-di-n-dipropylamine	5	Fluorene	5
Hexachloroethane	5	4-Nitroaniline	20
Nitrobenzene	5	4,6-Dinitro-2-methylphenol	20
Isophorone	5	N-Nitrosodiphenylamine	5
2-Nitrophenol	5	4-Bromophenyl-phenylether	5
2,4-Dimethylphenol	5	Hexachlorobenzene	5
bis-(2-Chloroethoxy)methane	5	Pentachlorophenol	20
2,4-Dichlorophenol	5	Phenanthrene	5
1,2,4-Trichlorobenzene	5	Anthracene	5
Naphthalene	5	Di-n-butylphthalate	5
4-Chloroaniline	5	Fluoranthene	5
Hexachlorobutadiene	5	Pyrene	5
4-Chloro-3-methylphenol	5	Butylbenzylphthalate	5
2-Methylnaphthalene	5	3,3'-Dichlorobenzidine	5
Hexachlorocyclopentadiene	5	Benz[a]anthracene	5
2,4,6-Trichlorophenol	5	Chrysene	5
2,4,5-Trichlorophenol	20	bis-(2-Ethylhexyl)phthalate	5
2-Chloronaphthalene	5	Di-n-octylphthalate	5
2-Nitroaniline	20	Benz[b]fluoranthene	5
Dimethylphthalate	5	Benz[k]fluoranthene	5
Acenaphthylene	5	Benz[a]pyrene	5
2,6-Dinitrotoluene	5	Indeno[1,2,3-cd]pyrene	5
3-Nitroaniline	20	Dibenzo[a,h]anthracene	5
Acenaphthene	5	Benzo[g,h,i]perylene	5

The above lot number has also been specially cleaned using procedures specified by the USEPA to limit the concentration of the following pesticides/PCBs compounds:

Compound	CRQL ($\mu\text{g/L}$)	Compound	CRQL ($\mu\text{g/L}$)
alpha-BHC	0.01	4,4'-DDT	0.02
beta-BHC	0.01	Methoxychlor	0.10
delta-BHC	0.01	Endrin ketone	0.02
gamma-BHC (Lindane)	0.01	Endrin aldehyde	0.02
Heptachlor	0.01	alpha-Chlordane	0.01
Aldrin	0.01	gamma-chlordane	0.01
Heptachlor epoxide	0.01	Toxaphene	1.00
Endosulfan I	0.01	Aroclor-1016	0.20
Dieldrin	0.02	Aroclor-1221	0.20
4,4'-DDE	0.02	Aroclor-1232	0.40
Endrin	0.02	Aroclor-1242	0.20
Endosulfan II	0.02	Aroclor-1248	0.20
4,4'-DDD	0.02	Aroclor-1254	0.20
Endosulfan sulfate	0.02	Aroclor-1260	0.20

The above lot number has also been specially cleaned using procedures specified by the USEPA to limit the concentration of the following elements:

Element	CRQL ($\mu\text{g/L}$)	Element	CRQL ($\mu\text{g/L}$)
Aluminum	100	Manganese	10
Antimony	5	Mercury	0.2
Arsenic	2	Nickel	20
Barium	20	Potassium	750
Beryllium	1	Selenium	3
Cadmium	1	Silver	10
Calcium	500	Sodium	500
Chromium	10	Thallium	10
Cobalt	10	Vanadium	10
Copper	10	Zinc	20
Iron	500	Cyanide	10
Lead	2	Fluoride	200
Magnesium	500	Nitrate/Nitrite	100



Quality Environmental Containers

C-QEC

CERTIFICATE OF QUALITY ENVIRONMENTAL COMPLIANCE

P.O. Box 1160 • Beaver, WV 25813 • 800-255-3950 • 304-255-3900

Lot Number

F-6-175-02AB

9 oz. Clear Jar 2114-0009

The above lot number has been specially cleaned using procedures specified by the USEPA to limit the concentration of the following organic compounds:

Compound	CRQL ($\mu\text{g/L}$)	Compound	CRQL ($\mu\text{g/L}$)
Phenol	5	2,4-Dinitrophenol	20
bis-(2-Chloroethyl)ether	5	4-Nitrophenol	20
2-Chlorophenol	5	Dibenzofuran	5
2-Methylphenol	5	2,4-Dinitrotoluene	5
2,2'-oxybis-(1-Chloropropane)	5	Diethylphthalate	5
4-Methylphenol	5	4-Chlorophenyl-phenylether	5
N-Nitroso-di-n-dipropylamine	5	Fluorene	5
Hexachloroethane	5	4-Nitroaniline	20
Nitrobenzene	5	4,6-Dinitro-2-methylphenol	20
Isophorone	5	N-Nitrosodiphenylamine	5
2-Nitrophenol	5	4-Bromophenyl-phenylether	5
2,4-Dimethylphenol	5	Hexachlorobenzene	5
bis-(2-Chloroethoxy)methane	5	Pentachlorophenol	20
2,4-Dichlorophenol	5	Phenanthrene	5
1,2,4-Trichlorobenzene	5	Anthracene	5
Naphthalene	5	Di-n-butylphthalate	5
4-Chloroaniline	5	Fluoranthene	5
Hexachlorobutadiene	5	Pyrene	5
4-Chloro-3-methylphenol	5	Butylbenzylphthalate	5
2-Methylnaphthalene	5	3,3'-Dichlorobenzidine	5
Hexachlorocyclopentadiene	5	Benz[a]anthracene	5
2,4,6-Trichlorophenol	5	Chrysene	5
2,4,5-Trichlorophenol	20	bis-(2-Ethylhexyl)phthalate	5
2-Chloronaphthalene	5	Di-n-octylphthalate	5
2-Nitroaniline	20	Benz[b]fluoranthene	5
Dimethylphthalate	5	Benz[k]fluoranthene	5
Acenaphthylene	5	Benz[a]pyrene	5
2,6-Dinitrotoluene	5	Indeno[1,2,3-cd]pyrene	5
3-Nitroaniline	20	Dibenzo[a,h]anthracene	5
Acenaphthene	5	Benz[g,h,i]perylene	5

The above lot number has also been specially cleaned using procedures specified by the USEPA to limit the concentration of the following pesticides/PCBs compounds:

Compound	CRQL ($\mu\text{g/L}$)	Compound	CRQL ($\mu\text{g/L}$)
alpha-BHC	0.01	4,4'-DDT	0.02
beta-BHC	0.01	Methoxychlor	0.10
delta-BHC	0.01	Endrin ketone	0.02
gamma-BHC (Lindane)	0.01	Endrin aldehyde	0.02
Heptachlor	0.01	alpha-Chlordane	0.01
Aldrin	0.01	gamma-Chlordane	0.01
Heptachlor epoxide	0.01	Toxaphene	1.00
Endosulfan I	0.01	Aroclor-1016	0.20
Dieldrin	0.02	Aroclor-1221	0.20
4,4'-DDE	0.02	Aroclor-1232	0.40
Endrin	0.02	Aroclor-1242	0.20
Endosulfan II	0.02	Aroclor-1248	0.20
4,4'-DDD	0.02	Aroclor-1254	0.20
Endosulfan sulfate	0.02	Aroclor-1260	0.20

The above lot number has also been specially cleaned using procedures specified by the USEPA to limit the concentration of the following elements:

Element	CRQL ($\mu\text{g/L}$)	Element	CRQL ($\mu\text{g/L}$)
Aluminum	100	Manganese	10
Antimony	5	Mercury	0.2
Arsenic	2	Nickel	20
Barium	20	Potassium	750
Beryllium	1	Selenium	3
Cadmium	1	Silver	10
Calcium	500	Sodium	500
Chromium	10	Thallium	10
Cobalt	10	Vanadium	10
Copper	10	Zinc	20
Iron	500	Cyanide	10
Lead	2	Fluoride	200
Magnesium	500	Nitrate/Nitrite	100

APPENDIX C

CHAINS OF CUSTODY

USEPA CLP COC (REGION COPY)

DateShipped: 10/12/2016

CarrierName: FedEx

AirbillNo: 806092038678

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 1

No: 3-100716-124713-0001

Lab: Chemtex

Lab Contact: Dr. C.N. Reddy

Lab Phone: 409-983-4575

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
46440-0001	MC0AA0	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1000 (Wet ice) (1)	WS-1	10/11/2016 16:20	Field Sample
46440-0002	MC0AA1	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1004 (Wet ice) (1)	SS-1	10/11/2016 14:05	Field Sample
46440-0003	MC0AA2	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1008 (Wet ice) (3)	SS-2	10/11/2016 11:55	Field Sample/MS/M SD
46440-0004	MC0AA3	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1012 (Wet ice) (1)	SS-3	10/11/2016 10:40	Field Sample
46440-0005	MC0AA4	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1016 (Wet ice) (1)	SS-4	10/11/2016 09:00	Field Sample
46440-0006	MC0AA5	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1020 (Wet ice) (1)	SS-5	10/11/2016 17:05	Field Duplicate of MC0AA0
46440-0008	MC0AB0	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1025 (Wet ice) (1)	WS-2	10/11/2016 16:30	Field Sample
46440-0009	MC0AB1	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1029 (Wet ice) (3)	SB-1	10/11/2016 14:25	Field Sample/MS/M SD
46440-0010	MC0AB2	Soil/ Sotero Svingos	Grab	ICP-MS(21)	1033 (Wet ice) (1)	SB-2	10/11/2016 12:20	Field Sample

Sample(s) to be used for Lab QC: 46440-0003 Tag 1008, 46440-0009 Tag 1029	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #
Analysis Key: ICP-MS=CLP ICP-MS Metals	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Barton CORE	10/12/16 18:00			

USEPA CLP COC (REGION COPY)

DateShipped: 10/12/2016

CarrierName: FedEx

AirbillNo: 806092038678

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 1

No: 3-100716-124713-0001

Lab: Chemtex

Lab Contact: Dr. C.N. Reddy

Lab Phone: 409-983-4575

Sample(s) to be used for Lab QC: 46440-0028 Tag 1196	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
Analysis Key: ICP-MS=CLP ICP-MS Metals	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Patten CORE	10/12/16 18:00			

USEPA CLP COC (REGION COPY)

DateShipped: 10/11/2016

CarrierName: FedEx

AirbillNo: 806092038818

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 1

No: 3-100716-145002-0002

Lab: ALS Laboratory Group - Salt Lake City

Lab Contact: Roxy Olson

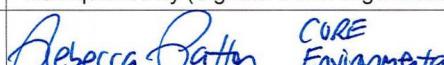
Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
46440-0003	C0AA2	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1009 (Wet ice), 1010 (Wet ice), 1011 (Wet ice), 1229 (Wet ice), 1230 (Wet ice), 1231 (Wet ice), 1232 (Wet ice), 1233 (Wet ice), 1234 (Wet ice), 1235 (Wet ice), 1236 (Wet ice) (15)	SS-2	10/11/2016 11:55	Field Sample/MS/M SD
46440-0004	C0AA3	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1013 (Wet ice), 1014 (Wet ice), 1015 (Wet ice), 1237 (Wet ice), 1238 (Wet ice) (5)	SS-3	10/11/2016 10:40	Field Sample
46440-0005	C0AA4	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1017 (Wet ice), 1018 (Wet ice), 1019 (Wet ice), 1239 (Wet ice), 1240 (Wet ice) (5)	SS-4	10/11/2016 09:00	Field Sample
46440-0011	C0AB3	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1038 (Wet ice), 1039 (Wet ice), 1040 (Wet ice), 1255 (Wet ice), 1256 (Wet ice) (5)	SB-3	10/11/2016 10:45	Field Sample
46440-0012	C0AB4	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1042 (Wet ice), 1043 (Wet ice), 1044 (Wet ice), 1257 (Wet ice), 1258 (Wet ice) (5)	SB-4	10/11/2016 09:05	Field Sample
46440-0027	C0AE0	Water/ Rebecca Patton	Grab	VOA(21)	1193 (HCl), 1293 (HCl) (2)	W-1	10/11/2016 12:00	Trip Blank

Sample(s) to be used for Lab QC: 46440-0003 Tag 1009, 46440-0003 Tag 1010, 46440-0003 Tag 1011, 46440-0003 Tag 1229, 46440-0003 Tag 1230, 46440-0003 Tag 1231, 46440-0003 Tag 1232, 46440-0003 Tag 1233, 46440-0003 Tag 1234, 46440-0003 Tag 1235, 46440-0003 Tag 1236, 46440-0027 Tag 1193, 46440-0027 Tag 1293

Shipment for Case Complete? N**Samples Transferred From Chain of Custody #**

Analysis Key: VOA=CLP Volatiles, SVOA=CLP Semivolatiles, SVOC SIM=CLP Semivolatiles SIM

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	 <i>Rebecca Patton</i> CORE Environmental	10/11/16 18:00			

USEPA CLP COC (REGION COPY)

DateShipped: 10/12/2016

CarrierName: FedEx

AirbillNo: 806092038667

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 2

No: 3-101216-110350-0003

Lab: ALS Laboratory Group - Salt Lake City

Lab Contact: Roxy Olson

Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
46440-0001	C0AA0	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1001 (Wet ice), 1002 (Wet ice), 1003 (Wet ice) (5)	WS-1	10/11/2016 16:20	Field Sample
46440-0002	C0AA1	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1005 (Wet ice), 1006 (Wet ice), 1007 (Wet ice) (5)	SS-1	10/11/2016 14:05	Field Sample
46440-0006	C0AA5	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1021 (Wet ice), 1022 (Wet ice), 1023 (Wet ice) (5)	SS-5	10/11/2016 17:05	Field Duplicate of COAAO
46440-0008	C0AB0	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1026 (Wet ice), 1027 (Wet ice), 1028 (Wet ice) (5)	WS-2	10/11/2016 16:30	Field Sample
46440-0009	C0AB1	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1030 (Wet ice), 1031 (Wet ice), 1032 (Wet ice) (15)	SB-1	10/11/2016 14:25	Field Sample/MS/M SD
46440-0010	C0AB2	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1034 (Wet ice), 1035 (Wet ice), 1036 (Wet ice) (5)	SB-2	10/11/2016 12:20	Field Sample
46440-0013	C0AB5	Soil/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1046 (Wet ice), 1047 (Wet ice), 1048 (Wet ice) (5)	SB-5	10/11/2016 17:15	Field Duplicate of COABO
46440-0028	C0AE1	Water/ Sotero Svingos	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1197 (HCl), 1198 (Wet ice), 1199 (Wet ice) (6)	W-2	10/11/2016 18:00	Rinsate
46440-0036	C0AE2	Water/ Rebecca Patton		VOA(21)	1296 (HCl) (1)	W-3	10/11/2016	Trip Blank
46440-0037	C0AE3	Water/ Rebecca Patton		VOA(21)	1298 (HCl) (1)	W-4	10/11/2016	Trip Blank

Sample(s) to be used for Lab QC: 46440-0009 Tag 1030, 46440-0009 Tag 1031, 46440-0009 Tag 1032, 46440-0028 Tag 1197, 46440-0028 Tag 1198, 46440-0028 Tag 1199, 46440-0036 Tag 1296, 46440-0037 Tag 1298	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #
Analysis Key: VOA=CLP Volatiles, SVOA=CLP Semivolatiles, SVOC SIM=CLP Semivolatiles SIM	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Patton CORE	10/12/16 18:00			

USEPA CLP COC (REGION COPY)

DateShipped: 10/25/2016

CarrierName: FedEx

AirbillNo: 806092038689

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 1

No: 3-102416-211331-0004

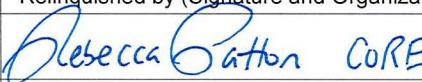
Lab: ALS Laboratory Group - Salt Lake City

Lab Contact: Roxy Olson

Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
46440-0015	C0AC0	Surface Water/ Rebecca Patton	Grab	VOA(21)	1051 (HCl) (3)	SW-1	10/25/2016 14:00	Field Sample
46440-0016	C0AC1	Surface Water/ Rebecca Patton	Grab	VOA(21)	1055 (HCl) (9)	SW-2	10/25/2016 13:00	Field Sample/MS/M SD
46440-0017	C0AC2	Surface Water/ Rebecca Patton	Grab	VOA(21)	1059 (HCl) (3)	SW-3	10/25/2016 12:00	Field Sample
46440-0018	C0AC3	Surface Water/ Rebecca Patton	Grab	VOA(21)	1063 (HCl) (3)	SW-4	10/25/2016 11:00	Field Sample
46440-0019	C0AC4	Surface Water/ Rebecca Patton	Grab	VOA(21)	1067 (HCl) (3)	SW-5	10/25/2016 14:00	Field Duplicate of C0AC0
46440-0021	C0AD0	Sediment/ Rebecca Patton	Grab	VOA(21)	1072 (Wet ice) (3)	SD-1	10/25/2016 14:30	Field Sample
46440-0022	C0AD1	Sediment/ Rebecca Patton	Grab	VOA(21)	1176 (Wet ice) (9)	SD-2	10/25/2016 13:30	Field Sample/MS/M SD
46440-0023	C0AD2	Sediment/ Rebecca Patton	Grab	VOA(21)	1180 (Wet ice) (3)	SD-3	10/25/2016 12:10	Field Sample
46440-0024	C0AD3	Sediment/ Rebecca Patton	Grab	VOA(21)	1184 (Wet ice) (3)	SD-4	10/25/2016 11:10	Field Sample

Sample(s) to be used for Lab QC: 46440-0016 Tag 1055, 46440-0022 Tag 1176	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #
Analysis Key: VOA=CLP Volatiles	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	 CORE	10/25/16 18:30			

USEPA CLP COC (REGION COPY)

DateShipped: 10/25/2016

CarrierName: FedEx

AirbillNo: 806092038689

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 1

No: 3-102416-211331-0004

Lab: ALS Laboratory Group - Salt Lake City

Lab Contact: Roxy Olson

Lab Phone: 801-266-7700

Sample(s) to be used for Lab QC: 46440-0039 Tag 1303	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Ratto CORE	10/25/16 18:30			

USEPA CLP COC (REGION COPY)

DateShipped: 10/26/2016

CarrierName: FedEx

AirbillNo: 806092038575

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 7

No: 3-102616-111208-0005

Lab: ALS Laboratory Group - Salt Lake City

Lab Contact: Roxy Olson

Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
46440-0015	C0AC0	Surface Water/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1052 (Wet ice), 1053 (Wet ice) (4)	SW-1	10/25/2016 14:00	Field Sample
46440-0016	C0AC1	Surface Water/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1056 (Wet ice), 1057 (Wet ice) (12)	SW-2	10/25/2016 13:00	Field Sample/MS/M SD
46440-0017	C0AC2	Surface Water/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1060 (Wet ice), 1061 (Wet ice) (4)	SW-3	10/25/2016 12:00	Field Sample
46440-0018	C0AC3	Surface Water/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1064 (Wet ice), 1065 (Wet ice) (4)	SW-4	10/25/2016 11:00	Field Sample
46440-0019	C0AC4	Surface Water/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1068 (Wet ice), 1069 (Wet ice) (4)	SW-5	10/25/2016 14:00	Field Duplicate <i>of C0AC0</i>
46440-0020	C0AC5	Surface Water/ Rebecca Patton	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1070 (HCl), 1305 (Wet Ice), 1306 (Wet Ice) (7)	SW-6	10/25/2016 17:00	Field Sample
46440-0021	C0AD0	Sediment/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1073 (Wet ice), 1074 (Wet ice) (2)	SD-1	10/25/2016 14:30	Field Sample
46440-0022	C0AD1	Sediment/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1177 (Wet ice), 1178 (Wet ice) (6)	SD-2	10/25/2016 13:30	Field Sample/MS/M SD
46440-0023	C0AD2	Sediment/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1181 (Wet ice), 1182 (Wet ice) (2)	SD-3	10/25/2016 12:10	Field Sample

Sample(s) to be used for Lab QC: 46440-0016 Tag 1056, 46440-0016 Tag 1057, 46440-0022 Tag 1177, 46440-0022 Tag 1178	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #

Analysis Key: SVOA=CLP Semivolatiles, SVOC SIM=CLP Semivolatiles SIM, VOA=CLP Volatiles

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>Rebecca Patton CORE</i>	10/26/16 18:30			

USEPA CLP COC (REGION COPY)

DateShipped: 10/26/2016

CarrierName: FedEx

AirbillNo: 806092038575

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 7

No: 3-102616-111208-0005

Lab: ALS Laboratory Group - Salt Lake City

Lab Contact: Roxy Olson

Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
46440-0024	C0AD3	Sediment/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1185 (Wet ice), 1186 (Wet ice) (2)	SD-4	10/25/2016 11:10	Field Sample
46440-0025	C0AD4	Sediment/ Rebecca Patton	Grab	SVOA(21), SVOC SIM(21)	1189 (Wet ice), 1190 (Wet ice) (2)	SD-5	10/25/2016 14:30	Field Duplicate of COAD0
46440-0038	C0AE4	Water/ Brian Liptock	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1300 (HCl), 1301 (Wet ice), 1302 (Wet ice) (7)	W-5	10/25/2016 17:45	Rinsate
46440-0040	C0AE6	Water/ Rebecca Patton		VOA(21)	1304 (HCl) (1)	W-7	10/25/2016	Trip Blank
46440-0029	C0AF0	Ground Water/ Brian Liptock	Grab	VOA(21)	1201 (HCl) (3)	TW-W	10/25/2016 17:10	Field Sample
46440-0030	C0AF1	Ground Water/ Brian Liptock	Grab	VOA(21), SVOA(21)	1205 (HCl), 1206 (Wet ice) (4)	TW-1	10/25/2016 16:10	Field Sample
46440-0031	C0AF2	Ground Water/ Brian Liptock	Grab	VOA(21), SVOA(21)	1209 (HCl), 1210 (Wet ice) (4)	TW-2	10/25/2016 15:25	Field Sample
46440-0032	C0AF3	Ground Water/ Brian Liptock	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1213 (HCl), 1214 (Wet ice), 1215 (Wet ice) (7)	TW-3	10/25/2016 13:45	Field Sample
46440-0033	C0AF4	Ground Water/ Brian Liptock	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1217 (HCl), 1218 (Wet ice), 1219 (Wet ice) (21)	TW-4	10/25/2016 11:45	Field Sample/MS/M SD
46440-0034	C0AF5	Ground Water/ Brian Liptock	Grab	VOA(21), SVOA(21), SVOC SIM(21)	1221 (HCl), 1222 (Wet ice), 1223 (Wet ice) (7)	TW-5	10/25/2016 13:45	Field Duplicate of COAF3

Sample(s) to be used for Lab QC: 46440-0038 Tag 1300, 46440-0038 Tag 1301, 46440-0038 Tag 1302, 46440-0040 Tag 1304, 46440-0030 Tag 1205, 46440-0030 Tag 1206, 46440-0033 Tag 1217, 46440-0033 Tag 1218, 46440-0033 Tag 1219	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #

Analysis Key: SVOA=CLP Semivolatiles, SVOC SIM=CLP Semivolatiles SIM, VOA=CLP Volatiles

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Patton CORE	10/26/16 18:30			

USEPA CLP COC (REGION COPY)

DateShipped: 10/26/2016

CarrierName: FedEx

AirbillNo: 806092038553

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 2

No: 3-102616-112524-0006

Lab: Chemtex

Lab Contact: Dr. C.N. Reddy

Lab Phone: 409-983-4575

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
46440-0015	MC0AC0	Surface Water/ Rebecca Patton	Grab	ICP-MS(21)	1050 (HNO3) (1)	SW-1	10/25/2016 14:00	Field Sample
46440-0016	MC0AC1	Surface Water/ Rebecca Patton	Grab	ICP-MS(21)	1054 (HNO3) (3)	SW-2	10/25/2016 13:00	Field Sample/MS/M SD
46440-0017	MC0AC2	Surface Water/ Rebecca Patton	Grab	ICP-MS(21)	1058 (HNO3) (1)	SW-3	10/25/2016 12:00	Field Sample
46440-0018	MC0AC3	Surface Water/ Rebecca Patton	Grab	ICP-MS(21)	1062 (HNO3) (1)	SW-4	10/25/2016 11:00	Field Sample
46440-0019	MC0AC4	Surface Water/ Rebecca Patton	Grab	ICP-MS(21)	1066 (HNO3) (1)	SW-5	10/25/2016 14:00	Field Duplicate <i>of MC0AC0</i>
46440-0020	MC0AC5	Surface Water/ Rebecca Patton	Grab	ICP-MS(21)	1307 (HNO3) (1)	SW-6	10/25/2016 17:00	Field Sample
46440-0021	MC0AD0	Sediment/ Rebecca Patton	Grab	ICP-MS(21)	1071 (Wet ice) (1)	SD-1	10/25/2016 14:30	Field Sample
46440-0022	MC0AD1	Sediment/ Rebecca Patton	Grab	ICP-MS(21)	1175 (Wet ice) (3)	SD-2	10/25/2016 13:30	Field Sample/MS/M SD
46440-0023	MC0AD2	Sediment/ Rebecca Patton	Grab	ICP-MS(21)	1179 (Wet ice) (1)	SD-3	10/25/2016 12:10	Field Sample

Sample(s) to be used for Lab QC: 46440-0016 Tag 1054, 46440-0022 Tag 1175	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #
Analysis Key: ICP-MS=CLP ICP-MS Metals	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>Rebecca Patton CORE</i>	10/26/16 20:00			

USEPA CLP COC (REGION COPY)

DateShipped: 10/26/2016

CarrierName: FedEx

AirbillNo: 806092038553

CHAIN OF CUSTODY RECORD

St. Albans Trailer Park/WV

Case #: 46440

Cooler #: 2

No: 3-102616-112524-0006

Lab: Chemtex

Lab Contact: Dr. C.N. Reddy

Lab Phone: 409-983-4575

Sample(s) to be used for Lab QC: 46440-0038 Tag 1299, 46440-0033 Tag 1216	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Patton CORE	10/26/16 20:00			

APPENDIX D

SITE PHOTOGRAPHS AND SAMPLE LOG SHEETS



Photograph # 1
View of the site along West Main Street, facing east.



Photograph # 2
View of the site along West Main Street, facing northwest.

DATE: October 11 and 25, 2016

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 3
Advancement of background soil boring SS-4, facing southwest.



Photograph # 4
Advancement of soil boring SS-2.

DATE: October 11 and 25, 2016

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 5
Advancement of soil boring SS-1.



Photograph # 6
Advancement of soil boring WS-1.

DATE: October 11 and 25, 2016

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 7
Advancement of soil boring SS-3.



Photograph # 8
Location of monitoring well TW-1.

DATE: October 11 and 25, 2016

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 9

Location of monitoring well TW-W. Trailer #6 removed after installation of monitoring well.



Photograph # 10

Location of surface water sample SW-1 and sediment sample SD-1.

DATE: October 11 and 25, 2016

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 11

Location of surface water sample SW-2 and sediment sample SD-2.



Photograph # 12

Location of surface water sample SW-3 and sediment sample SD-3.

DATE: October 11 and 25, 2016

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 13
Location of surface water sample SW-4 and sediment sample SD-4.



Photograph # 14
Location of surface water sample SW-6.

DATE: October 11 and 25, 2016

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 15

Trash and household debris located at northwestern base of fill material area.



Photograph # 16

Concrete fill material observed at northwestern base of fill material area.

DATE: October 11 and 25, 2016

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 17

View of the site along West Main Street, showing location of unidentified waste material.



Photograph # 18

View of waste material; predominantly black color at the surface.

DATE: January 3, 2017

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia



Photograph # 19
Close up of waste material.



Photograph # 20
Location of waste material, facing northeast.

DATE: January 3, 2017

CERCLIS ID # WVD988783064

PROJECT NAME:
St. Albans Trailer Park
369 West Main Street
St. Albans, Kanawha County, West Virginia

GROUNDWATER

 ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET			
		St. Albans Trailer Park			
Sample Identification:	TW-W	Date:	10/25/2016		
CLP Sample Numbers:	C0AF0	Time:	17:10		
Sample Media:	Groundwater	Type:	GRAB		
Analysis:	Inorganics	VOC	SVOC		
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM		
Tag Number:	N/A	1201	N/A		
Number of Containers:	1	3	4		
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass		
Sample Preservation:	HNO3	HCL	Ice		
Sample Description:	Depth to water - 18.78 Depth to bottom - 21.85				
Sample Location:	Latitude		Longitude		
	38.39653		-81.85333		
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP
	N/A	N/A	N/A	N/A	N/A
Photo Description:	Photo #9				
Comments:	Insufficient water volume to purge well or collect field parameters. Only VOAs were able to be filled.				
Sampler Name and Initials:	Brian Liptock/BL				

GROUNDWATER

 ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	TW-1	Date:	10/25/2016			
CLP Sample Numbers:	C0AF1	Time:	16:10			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	N/A	1205	1206			
Number of Containers:	N/A	3	1			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Depth to water - 21.25 Depth to bottom - 28.09					
Sample Location:	Latitude		Longitude			
	38.39664		-81.85319			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
	7.23	17.38	1.64	1.78	-93.3	
Photo Description:	Photo #8					
Comments:	Insufficient water volume to purge well. Only VOAs and one 1-amber liter were able to be filled. Pump run on lowest speed. Unable to avoid drawdown.					
Sampler Name and Initials:	Brian Liptock/BL					

GROUNDWATER

 ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	TW-2	Date:	10/25/2016			
CLP Sample Numbers:	C0AF2	Time:	15:25			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	N/A	1209	1210			
Number of Containers:	N/A	3	1			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Depth to water - 22.33 Depth to bottom - 27.55					
Sample Location:	Latitude		Longitude			
	38.39671		-81.85342			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
	N/A	N/A	N/A	N/A	N/A	
Photo Description:						
Comments:	Insufficient water volume to purge well or collect field parameters. Only VOAs and one 1-amber liter were able to be filled.					
Sampler Name and Initials:	Brian Liptock/BL					

GROUNDWATER

 ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	TW-3	Date:	10/25/2016			
CLP Sample Numbers:	C0AF3 MC0AF3	Time:	13:45			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	1212	1213	1214/1215			
Number of Containers:	1	3	4			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Depth to water - 18.15 Depth to bottom - 21.23					
Sample Location:	Latitude		Longitude			
	38.39622		-81.85277			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
	6.64	17.36	1.217	0.93	50.2	
Photo Description:						
Comments:						
Sampler Name and Initials:	Brian Liptock/BL					

GROUNDWATER

 ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	TW-4	Date:	10/25/2016			
CLP Sample Numbers:	C0AF4 MC0AF4	Time:	11:45			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	1216	1217	1218/1219			
Number of Containers:	1	3	4			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Depth to water - 12.36 Depth to bottom - 16.21					
Sample Location:	Latitude		Longitude			
	38.39616		-81.85305			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
	7.08	16.78	0.372	0.80	-113.7	
Photo Description:						
Comments:						
Sampler Name and Initials:	Brian Liptock/BL					

GROUNDWATER

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET			
St. Albans Trailer Park					
Sample Identification:	TW-5	Date:	10/25/2016		
CLP Sample Numbers:	C0AF3 MC0AF3	Time:	13:45		
Sample Media:	Groundwater	Type:	GRAB		
Analysis:	Inorganics	VOC	SVOC		
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM		
Tag Number:	1212	1213	1214/1215		
Number of Containers:	1	3	4		
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass		
Sample Preservation:	HNO3	HCL	Ice		
Sample Description:	Depth to water - 18.15 Depth to bottom - 21.23				
Sample Location:	Latitude		Longitude		
	38.39622		-81.85277		
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP
	6.64	17.36	1.217	0.93	50.2
Photo Description:					
Comments:	Duplicate of MW-3				
Sampler Name and Initials:	Brian Liptock/BL				

SEDIMENT

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET	
St. Albans Trailer Park			
Sample Identification:	SD-1	Date:	10/25/2016
CLP Sample Number:	C0AD0 MC0AD0	Time:	14:30
Sample Media:	Sediment	Type:	GRAB
Analysis:	Inorganics	VOC	SVOC
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM
Tag Number:	1071	1072	1073/1074
Number of Containers:	1	3	2
Type of Containers:	8-oz Glass Jar	En-Cores	8-oz Glass Jar
Sample Preservation:	Ice Only	Ice Only	Ice Only
Sample Description:	Sediment in stream is mostly small rocks. Sandy, silty sediment collected from stream bank. Little organic matter.		
Sample Location:	Latitude		Longitude
38.39716		-80.85354	
Photo Description:	Photo #10		
Comments:			
Sampler Name and Initials:	Rebecca Patton/RAP		

SEDIMENT

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET	
St. Albans Trailer Park			
Sample Identification:	SD-2	Date:	10/25/2016
CLP Sample Number:	C0AD1 MC0AD1	Time:	13:30
Sample Media:	Sediment	Type:	GRAB
Analysis:	Inorganics	VOC	SVOC
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM
Tag Number:	1075	1076	1077/1078
Number of Containers:	1	3	2
Type of Containers:	8-oz Glass Jar	En-Cores	8-oz Glass Jar
Sample Preservation:	Ice Only	Ice Only	Ice Only
Sample Description:	Medium brown silty sediment. Small rocks and pebbles present. Small fish observed in water.		
Sample Location:	Latitude		Longitude
38.39701		-81.85285	
Photo Description:	Photo #11		
Comments:			
Sampler Name and Initials:	Rebecca Patton/RAP		

SEDIMENT

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET	
St. Albans Trailer Park			
Sample Identification:	SD-3	Date:	10/25/2016
CLP Sample Number:	C0AD2 MC0AD2	Time:	12:10
Sample Media:	Sediment	Type:	GRAB
Analysis:	Inorganics	VOC	SVOC
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM
Tag Number:	1179	1180	1181/1182
Number of Containers:	1	3	2
Type of Containers:	8-oz Glass Jar	En-Cores	8-oz Glass Jar
Sample Preservation:	Ice Only	Ice Only	Ice Only
Sample Description:	Cement blocks and fill located along stream bank. Silty, light to dark with black organic matter.		
	Latitude	Longitude	
Sample Location:	38.3966		-81.85247
Photo Description:	Photo #12		
Comments:			
Sampler Name and Initials:	Rebecca Patton/RAP		

SEDIMENT

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET	
St. Albans Trailer Park			
Sample Identification:	SD-4	Date:	10/25/2016
CLP Sample Number:	C0AD3 MC0AD3	Time:	11:10
Sample Media:	Sediment	Type:	GRAB
Analysis:	Inorganics	VOC	SVOC
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM
Tag Number:	1183	1184	1185/1186
Number of Containers:	1	3	2
Type of Containers:	8-oz Glass Jar	En-Cores	8-oz Glass Jar
Sample Preservation:	Ice Only	Ice Only	Ice Only
Sample Description:	Slight sheen on surface water. Light to dark brown silty clay. Organic matter throughout.		
Sample Location:	Latitude		Longitude
38.39678		-81.85285	
Photo Description:	Photo #13		
Comments:			
Sampler Name and Initials:	Rebecca Patton/RAP		

SEDIMENT

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET	
St. Albans Trailer Park			
Sample Identification:	SD-5	Date:	10/25/2016
CLP Sample Number:	C0AD4 MC0AD4	Time:	14:30
Sample Media:	Sediment	Type:	GRAB
Analysis:	Inorganics	VOC	SVOC
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM
Tag Number:	1187	1188	1189/1190
Number of Containers:	1	3	2
Type of Containers:	8-oz Glass Jar	En-Cores	8-oz Glass Jar
Sample Preservation:	Ice Only	Ice Only	Ice Only
Sample Description:	Sediment in stream is mostly small rocks. Sandy, silty sediment collected from stream bank. Little organic matter.		
Sample Location:	Latitude		Longitude
38.39716		-80.85354	
Photo Description:	Photo #10		
Comments:	Duplicate of SD-1		
Sampler Name and Initials:	Rebecca Patton/RAP		

SURFACE WATER

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	SW-1	Date:	10/25/2016			
CLP Sample Numbers:	C0AC0 MC0AC0	Time:	14:00			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	1050	1051	1052/1053			
Number of Containers:	1	3	4			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Clear water, pooling downstream of sample point.					
Sample Location:	Latitude 38.39716		Longitude -80.85354			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
Photo Description:	Photo #10					
Comments:						
Sampler Name and Initials:	Rebecca Patton/RAP					

SURFACE WATER

 ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	SW-2	Date:	10/25/2016			
CLP Sample Numbers:	C0AC1 MC0AC1	Time:	13:00			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	1054	1055	1056/1057			
Number of Containers:	1	3	4			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Clear water, small fish observed in water. Pooling upstream of sample point.					
Sample Location:	Latitude		Longitude			
	38.39701		-81.85285			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
	8.53	13.35	0.209	11.25	55.2	
Photo Description:	Photo #11					
Comments:						
Sampler Name and Initials:	Rebecca Patton/RAP					

SURFACE WATER

 ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	SW-3	Date:	10/25/2016			
CLP Sample Numbers:	C0AC2 MC0AC2	Time:	12:00			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	1058	1059	1060/1061			
Number of Containers:	1	3	4			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Clear water, flowing.					
Sample Location:	Latitude		Longitude			
	38.3966		-81.85247			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
	8.50	13.35	0.386	11.79	50.3	
Photo Description:	Photo #12					
Comments:						
Sampler Name and Initials:	Rebecca Patton/RAP					

SURFACE WATER

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	SW-4	Date:	10/25/2016			
CLP Sample Numbers:	C0AC3 MC0AC3	Time:	11:00			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	1062	1063	1064/1065			
Number of Containers:	1	3	4			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Sheen observed on water, clear water.					
Sample Location:	Latitude 38.39678		Longitude -81.85285			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
Photo Description:	Photo #13					
Comments:						
Sampler Name and Initials:	Rebecca Patton/RAP					

SURFACE WATER

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	SW-5	Date:	10/25/2016			
CLP Sample Numbers:	C0AC4 MC0AC4	Time:	14:00			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	1066	1067	1068/1069			
Number of Containers:	1	3	4			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Clear water, pooling downstream of sample point.					
Sample Location:	Latitude		Longitude			
	38.39716		-80.85354			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
	8.58	13.45	0.469	9.92	53.8	
Photo Description:	Photo #10					
Comments:	Duplicate of SW-1					
Sampler Name and Initials:	Rebecca Patton/RAP					

SURFACE WATER

 CORE ENVIRONMENTAL SERVICES, INC. <small>Consulting • Operation & Maintenance • Risk Assessment • Engineering</small>		SAMPLE LOG SHEET				
St. Albans Trailer Park						
Sample Identification:	SW-6	Date:	10/25/2016			
CLP Sample Numbers:	C0AC5 MC0AC5	Time:	17:00			
Sample Media:	Groundwater	Type:	GRAB			
Analysis:	Inorganics	VOC	SVOC			
SOW:	ISM02.3	SOM02.3	SOM02.3/SOM02.3 SIM			
Tag Number:	1307	1070	1305/1306			
Number of Containers:	1	3	4			
Type of Containers:	1-Liter Plastic	40-mL VOA	1-Liter Amber Glass			
Sample Preservation:	HNO3	HCL	Ice			
Sample Description:	Collection of water at western base of fill area. Sheen observed on water surface.					
Sample Location:	Latitude		Longitude			
	38.3969		-81.85305			
Field Parameters:	pH	Temperature °C	Conductivity (mS/cm)	Dissolved Oxygen	ORP	
	8.38	13.62	1.051	10.14	62.6	
Photo Description:	Photo #14					
Comments:						
Sampler Name and Initials:	Rebecca Patton/RAP					

APPENDIX E

DRILLING LOGS AND WELL LOGS

PROJECT NAME: St. Albans Trailer Park ADDRESS: 369 West Main Street CITY, STATE: St. Albans, West Virginia PROJECT NUMBER: WVDEP-2015-562 LAND OWNER: Robert Walker		BORING/WELL NUMBER: TW-W CONTRACTOR: CORE Environmental Services, Inc. DATE: 10/11/2016	GPS COORDINATES: 38.39653, -81.85333 DRILLING METHOD: Direct Push/ Hollow Stem Auger DRILLING RIG: Geoprobe 7822DT DRILL CREW: EnviroCheck of VA
WELL CONSTRUCTION DETAILS	DEPTH (ft bgs)	LITHOLOGIC DESCRIPTIONS	PID (ppm)
STEEL WELL LID	1 *		
GROUT MATERIAL: CONCRETE	2	Grass, brown soft sandy silt; dry	1,128
SEAL MATERIAL	3		
BENTONITE PELLETS	4		
CASING DIAMETER: 2"	5		
RISER: PVC SCH 40	6		
FILTER PACK	7		
MATERIAL: QUARTZ SAND	8		
SCREEN PVC SCH 40	9		
DIAMETER: 2"	10		
SLOT SIZE: 0.010	11	Unknown material (black and white elastic polymer)	-
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
	20 *	Brown stiff silt mixed with unknown material	112.8
DEPTH TO BOTTOM OF MONITORING WELL: 23'	21		
	22	Brown sand; refusal	4.7
	23		
		* Surface soil sample WS-1 collected at 0-1.5' bgs * Subsurface soil sample WS-2 collected at 19-20' bgs	
Note: Lithologic descriptions are based on recovered material within 5' sleeves. Therefore, soil transitions are approximate.			

PROJECT NAME: St. Albans Trailer Park ADDRESS: 369 West Main Street CITY, STATE: St. Albans, West Virginia PROJECT NUMBER: WVDEP-2015-562 LAND OWNER: Robert Walker		BORING/WELL NUMBER: TW-1 CONTRACTOR: CORE Environmental Services, Inc. DATE: 10/11/2016	GPS COORDINATES: 38.39664, -81.85319 DRILLING METHOD: Direct Push/ Hollow Stem Auger DRILLING RIG: Geoprobe 782DT DRILL CREW: EnviroCheck of VA
WELL CONSTRUCTION DETAILS		DEPTH (ft bgs)	LITHOLOGIC DESCRIPTIONS
STEEL WELL LID GROUT MATERIAL: CONCRETE SEAL MATERIAL BENTONITE PELLETS		1 * 2 3	Grass, brown stiff silt; dry 0.6
CASING DIAMETER: 2" RISER: PVC SCH 40		4 5	
FILTER PACK MATERIAL: QUARTZ SAND		6 7 8 9	Brown stiff silt with glass fragments 0.5
SCREEN PVC SCH 40 DIAMETER: 2" SLOT SIZE: 0.010		10 11 12 13 14 15 16 17 18	
DEPTH TO BOTTOM OF MONITORING WELL: 20'		19 20 21 22 23 24	Brown soft silt with rock fragments 1.3 1.1
DEPTH TO BOTTOM OF MONITORING WELL: 28'		25 * 26 27 28	Reddish brown fine-grained sand 1.3 -
			Brown medium soft sandy silt; moist 1.9 1.8
<p>* Surface soil sample SS-1 collected at 1-2' bgs * Subsurface soil sample SB-1 collected at 24-26' bgs</p>			
Note: Lithologic descriptions are based on recovered material within 5' sleeves. Therefore, soil transitions are approximate.			

PROJECT NAME: St. Albans Trailer Park ADDRESS: 369 West Main Street CITY, STATE: St. Albans, West Virginia PROJECT NUMBER: WVDEP-2015-562 LAND OWNER: Robert Walker		BORING/WELL NUMBER: TW-2 CONTRACTOR: CORE Environmental Services, Inc. DATE: 10/11/2016	GPS COORDINATES: 38.39671, -81.85342 DRILLING METHOD: Direct Push/ Hollow Stem Auger DRILLING RIG: Geoprobe 7822DT DRILL CREW: EnviroCheck of VA
WELL CONSTRUCTION DETAILS	DEPTH (ft bgs)	LITHOLOGIC DESCRIPTIONS	PID (ppm)
STEEL WELL LID	1		
GROUT MATERIAL: CONCRETE	2		2.3
SEAL MATERIAL	3	Grass, brown medium soft sandy silt; dry	
BENTONITE PELLETS	4		2.1
CASING DIAMETER: 2"	5		
RISER: PVC SCH 40	6	Brown hard sandy silt with rock fragments	1.3
FILTER PACK	7		
MATERIAL: QUARTZ SAND	8	Reddish brown medium soft silt; dry	1.6
SCREEN PVC SCH 40	9		
DIAMETER: 2"	10	Organics	1.3
SLOT SIZE: 0.010	11		0.8
DEPTH TO BOTTOM OF MONITORING WELL: 20'	12	Brown sandy silt	
	13		1.7
	14		
	15	Trace fill material, glass	1.3
	16		
	17		2.0
	18		
	19	Brown sandy silt	6.8
DEPTH TO BOTTOM OF MONITORING WELL: 29'	20		
	21		1.6
	22		
	23		1.6
	24	Reddish brown silty clay, stiff to hard	
	25		1.8
	26		
	27	Reddish brown silty clay, soft	
	28		
	29	Weathered sandstone	0.7
 			
Note: Lithologic descriptions are based on recovered material within 5' sleeves. Therefore, soil transitions are approximate.			

PROJECT NAME: St. Albans Trailer Park ADDRESS: 369 West Main Street CITY, STATE: St. Albans, West Virginia PROJECT NUMBER: WVDEP-2015-562 LAND OWNER: Robert Walker		BORING/WELL NUMBER: TW-3 CONTRACTOR: CORE Environmental Services, Inc. DATE: 10/11/2016	GPS COORDINATES: 38.39622, -81.85277 DRILLING METHOD: Direct Push/ Hollow Stem Auger DRILLING RIG: Geoprobe 7822DT DRILL CREW: EnviroCheck of VA
WELL CONSTRUCTION DETAILS		DEPTH (ft bgs)	LITHOLOGIC DESCRIPTIONS
STEEL WELL LID GROUT MATERIAL: CONCRETE SEAL MATERIAL BENTONITE PELLETS CASING DIAMETER: 2" RISER: PVC SCH 40 FILTER PACK MATERIAL: QUARTZ SAND SCREEN PVC SCH 40 DIAMETER: 2" SLOT SIZE: 0.010 DEPTH TO BOTTOM OF MONITORING WELL: 25'		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	<p>Gravel, brown soft sand with trace silt and glass fragments; dry</p> <p>Brown stiff silt with trace sand and gravel</p> <p>Reddish brown stiff silt with trace sand</p> <p>Gray stiff silt with rock fragments</p> <p>Reddish brown, loose silt</p> <p>Brown soft silt; moist</p>
			PID (ppm)
			1.3
			2.0
			1.3
			1.6
			1.3
			0
			1.9
			2.2
			0
			1.5
			1.3
			0.7
			1.7

* Surface soil sample SS-3 collected at 1-2' bgs
 * Subsurface soil sample SB-3 collected at 2-4' bgs

Note: Lithologic descriptions are based on recovered material within 5' sleeves. Therefore, soil transitions are approximate.

PROJECT NAME: St. Albans Trailer Park		BORING/WELL NUMBER: TW-4	GPS COORDINATES: 38.39616, -81.85305
ADDRESS: 391 West Main Street	CORE Environmental Services, Inc.	CONTRACTOR: CORE Environmental Services, Inc.	DRILLING METHOD: Direct Push/ Hollow Stem Auger
CITY, STATE: St. Albans, West Virginia			
PROJECT NUMBER: WVDEP-2015-562	DATE: 10/11/2016	DRILLING RIG: Geoprobe 7822DT	
LAND OWNER: Ryan Shreve		DRILL CREW: EnviroCheck of VA	
WELL CONSTRUCTION DETAILS		DEPTH (ft bgs)	LITHOLOGIC DESCRIPTIONS
STEEL WELL LID		1	*
GROUT MATERIAL: CONCRETE		2	Grass, soft brown sandy silt; dry
SEAL MATERIAL		3	*
BENTONITE PELLETS		4	
CASING DIAMETER: 2"		5	
RISER: PVC SCH 40		6	
FILTER PACK		7	
MATERIAL: QUARTZ SAND		8	
SCREEN PVC SCH 40		9	
DIAMETER: 2"		10	
SLOT SIZE: 0.010		11	
DEPTH TO BOTTOM OF MONITORING WELL: 17'		12	
		13	
		14	
		15	
		16	Gray fine to medium grained sand; moist
		17	Brown hard silt
		*	Surface soil sample SS-4 collected at 1-2' bgs
		*	Subsurface soil sample SB-4 collected at 2-4' bgs

Note: Lithologic descriptions are based on recovered material within 5' sleeves. Therefore, soil transitions are approximate.

State of West Virginia Department of Environmental Protection		Monitoring Well Construction Well Number: WV00433-0119-16
Site Name/Physical Address: Site: Robert Walker Line 1: 369 West Main Street, Line 2: City: St. Albans State: WV Zip: 25177- County: Kanawha	Well Registration No. WV00433-0119-16 Grid Location: a. Latitude: 38 23 39 .0 b. Longitude: 81 50 59 .0 c. Method Used: GPS	Purpose of Monitoring Well: Site Assessment
Well Owner (Name, Firm, Address): Owner: WVDEP-OER Line 1: 601 57th Street SE Line 2: City: Charleston State: WV Zip: 25304- Phone: 304-926-0499	Company/Project Well No.: TW-W	Date Well Installed: 10/11/2016
	Installed By (Name, Firm, Address): Installer: EnviroCheck of Va, Inc Line 1: 375 Mountain Lane Line 2: City: Tazewell State: VA Zip: 24651- Phone: 276-701-3093	Driller's WV Cert No. WV00433
Section B: (all number fields must be in decimal format)		
1.Cap and Lock:	YES	
2.Protective Cover:	Flush Mount	
3.Monitoring Well Reference Point:	0 ft.	
4.Borehole Diameter:	4 inches.	
5.Ground Surface Seal: a.Material: concrete b.Installation Procedure: gravity		
6.Surface Seal Bottom/Annular Space Top:	0.5 ft.	
7.Well Riser: a.OD Well Riser: 1.25 inches. b.ID Well Riser: 1 inches. c.Material: PVC d.Installation Procedure: hand set		
8.Annular Space Seal: a.Material: bentonite chip - b.Installation Procedure: pour		
9.Well Development Procedure: surge/purge -		
10.Drilling Method Used: hydraulic driven point -		
11.Annular Space Seal Bottom/Filter Seal Top:	1 ft.	
12.Drilling Fluid Used: No Source:		
13.Filter Pack Seal: a.Material: bentonite granule b.Installation Procedure: Gravity Fed c.Volume Added: 5 pounds		
14.Bottom of Bentonite Seal/Filter Pack Top:	4 ft.	
15.Depth to Top of Screen:	18 ft.	
16.Screen: a.Material: PVC b.Installation Procedure: hand set c.Slot Size: 0.01 inches. d.Screen Length: 5 ft.		
17.Filter Pack: a.Material: medium sand b.Installation Procedure: gravity		
18.Well Depth:	23 ft.	
19.Bottom of Filter Pack:	23 ft.	
20.Bottom of Borehole:	23 ft.	
21.Backfill Material (below filter pack): none		
22.Decontamination Procedures: new material		
23.Special Circumstances and Exceptions: No Variance Number:		
24.WV Contractor License No. WV041258		

State of West Virginia Department of Environmental Protection		Monitoring Well Construction Well Number: WV00433-0120-16																																																
Site Name/Physical Address: Site: Robert Walker Line 1: 369 West Main Street Line 2: City: St Albans State: WV Zip: 25177- County: Kanawha	Well Registration No. WV00433-0120-16 Grid Location: a. Latitude: 38 23 39 .0 b. Longitude: 81 50 58 .0 c. Method Used: GPS Differentially Collected	Purpose of Monitoring Well: site assessment																																																
Well Owner (Name, Firm, Address): Owner: WVDEP-OER Line 1: 601 57th Street SE Line 2: City: Charleston State: WV Zip: 25304- Phone: 304-928-0499	Company/Project Well No.: TW-1 Installed By (Name, Firm, Address): Installer: EnviroCheck of Va, Inc. Line 1: 375 Mountain Lane Line 2: City: Tazewell State: VA Zip: 24651- Phone: 276-701-3093	Date Well Installed: 10/11/2016 Driller's WV Cert No. WV00433																																																
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State of West Virginia Department of Environmental Protection		Monitoring Well Construction Well Number: WV00433-0121-16
Site Name/Physical Address: Site: Robert Walker Line 1: 369 West Main Street Line 2: City: St. Albans State: WV Zip: 25177- County: Kanawha	Well Registration No. WV00433-0121-16 Grid Location: a. Latitude: 38 23 39 .0 b. Longitude: 81 50 59 .0 c. Method Used: GPS Differentially Collected	Purpose of Monitoring Well: Site Assessment
Well Owner (Name, Firm, Address): Owner: WVDEP-OER Line 1: 601 57th Street SE Line 2: City: Charleston State: WV Zip: 25304- Phone: 304-928-0499	Company/Project Well No.: TW-2 Installed By (Name, Firm, Address): Installer: EnviroCheck of Va, Inc. Line 1: 375 Mountain Lane Line 2: City: Tazewell State: VA Zip: 24651- Phone: 276-701-3093	Date Well Installed: 10/11/2016 Driller's WV Cert No. WV00433
<p>Section B: (all number fields must be in decimal format)</p> <p>1. Cap and Lock: YES 2. Protective Cover: Flush Mount 3. Monitoring Well Reference Point: 0 ft. 4. Borehole Diameter: 4 inches. 5. Ground Surface Seal: a. Material: concrete b. Installation Procedure: gravity 6. Surface Seal Bottom/Annular Space Top: 1 ft. 7. Well Riser: a. OD Well Riser: 1.5 inches. b. ID Well Riser: 1 inches. c. Material: PVC d. Installation Procedure: hand set 8. Annular Space Seal: a. Material: bentonite pellet - b. Installation Procedure: pour 9. Wall Development Procedure: surge/purge - 10. Drilling Method Used: hydraulic driven point - 11. Annular Space Seal Bottom/Filter Seal Top: 6 ft. 12. Drilling Fluid Used: No Source: 13. Filter Pack Seal: a. Material: bentonite pellet b. Installation Procedure: Gravity Fed c. Volume Added: 10 pounds 14. Bottom of Bentonite Seal/Filter Pack Top: 8.5 ft. 15. Depth to Top of Screen: 14 ft. 16. Screen: a. Material: PVC b. Installation Procedure: hand set c. Slot Size: 0.01 inches. d. Screen Length: 15 ft. 17. Filter Pack: a. Material: medium sand b. Installation Procedure: gravity 18. Well Depth: 29 ft. 19. Bottom of Filter Pack: 29 ft. 20. Bottom of Borehole: 29 ft. 21. Backfill Material (below filter pack): none 22. Decontamination Procedures: new material 23. Special Circumstances and Exceptions: No Variance Number: 24. WV Contractor License No. WV041258</p>		

State of West Virginia Department of Environmental Protection		Monitoring Well Construction Well Number: WV00433-0122-16
Site Name/Physical Address: Site: Robert Walker Line 1: 369 West Main Street Line 2: City: St. Albans State: WV Zip: 25177- County: Kanawha	Well Registration No. WV00433-0122-16 Grid Location: a. Latitude: 38 23 39 .0 b. Longitude: 81 50 59 .0 c. Method Used: GPS	Purpose of Monitoring Well: Site Assessment
Well Owner (Name, Firm, Address): Owner: WVDEP-OER Line 1: 601 57th Street SE Line 2: City: Charleston State: WV Zip: 25304- Phone: 304-928-0499	Company/Project Well No.: TW-3 Installed By (Name, Firm, Address): Installer: EnviroCheck of Va, Inc Line 1: 375 Mountain Lane Line 2: City: Tazewell State: VA Zip: 24651- Phone: 276-701-3099	Date Well Installed: 10/11/2016 Driller's WV Cert No. WV00433
<p>Section B: (all number fields must be in decimal format)</p> <p>1.Gap and Lock: YES 2.Protective Cover: Plush Mount 3.Monitoring Well Reference Point: 4.Borehole Diameter: 0 ft. 5.Ground Surface Seal: a.Material: concrete b.Installation Procedure: gravity 6.Surface Seal Bottom/Annular Space Top: 7.Well Riser: a.OO Well Riser: 1.5 inches, b.ID Well Riser: 1 inches. c.Material: PVC d.Installation Procedure: hand set 8.Annular Space Seal: a.Material: bentonite chip - b.Installation Procedure: tremie pipe-gravity 9.Well Development Procedure: surge/purge - 10.Drilling Method Used: hydraulic driven point - 11.Annular Space Seal Bottom/Filter Seal Top: 8 ft. 12.Drilling Fluid Used: No Source: 13.Filler Pack Seal: a.Material: bentonite pellet b.Installation Procedure: Gravity Fed c.Volume Added: 10 pounds 14.Bottom of Bentonite Seal/Filter Pack Top: 10 ft. 15.Depth to Top of Screen: 11.5 ft. 16.Screen: a.Material: PVC b.Installation Procedure: hand set c.Slot Size: 0.01 inches, d.Screen Length: 10 ft. 17.Filter Pack: a.Material: fine sand b.Installation Procedure: hand pour 18.Well Depth: 21.5 ft. 19.Bottom of Filter Pack: 21.5 ft. 20.Bottom of Borehole: 21.5 ft. 21.Backfill Material (below filter pack): none 22.Decontamination Procedures: new material 23.Special Circumstances and Exceptions: No Variance Number: 24.WV Contractor License No. WV041258</p>		

State of West Virginia Department of Environmental Protection		Monitoring Well Construction Well Number: WV00433-0123-16
Site Name/Physical Address: Site: Ryan Shreve Line 1: 391 West Main Street Line 2: City: St. Albans State: WV Zip: 25177- County: Kanawha	Well Registration No. WV00433-0123-16 Grid Location: a. Latitude: 38 23 39 .0 b. Longitude: 81 50 60 .0 c. Method Used: GPS	Purpose of Monitoring Well: Site Assessment
Well Owner (Name, Firm, Address): Owner: WVDEP-OER Line 1: 601 57th Street SE Line 2: City: Charleston State: WV Zip: 25304- Phone: 304-826-0499	Company/Project Well No.: TW-4 Installed By (Name, Firm, Address): Installer: EnviroCheck of Va, Inc Line 1: 375 Mountain Lane Line 2: City: Tazewell State: WV Zip: 24651- Phone: 276-701-3093	Date Well Installed: 10/11/2016 Driller's WV Cert No. WV00433
<p>Section B: (all number fields must be in decimal format)</p> <p>1. Cap and Lock: YES 2. Protective Cover: Flush Mount 3. Monitoring Well Reference Point: 4. Borehole Diameter: 0 ft. 5. Ground Surface Seal: a. Material: concrete b. Installation Procedure: gravity 6. Surface Seal Bottom/Annular Space Top: 4 inches. 7. Well Riser: a.OO Well Riser: 1.5 inches. b.ID Well Riser: 1 inches. c.Material: PVC d.Installation Procedure: hand set 8. Annular Space Seal: a.Material: bentonite pellet - b.Installation Procedure: pour 9. Well Development Procedure: surge/purge - 10.Drilling Method Used: hydraulic driven point - 11.Annular Space Seal Bottom/Filter Seal Top: 2 ft. 12.Drilling Fluid Used: No Source: 13.Filter Pack Seal: a.Material: bentonite chip b.Installation Procedure: Gravity Fed c.Volume Added: 10 pounds 14.Bottom of Bentonite Seal/Filter Pack Top: 4.5 ft. 15.Depth to Top of Screen: 6.5 ft. 16.Screen: a.Material: PVC b.Installation Procedure: hand set c.Slot Size: 0.01 inches. d.Screen Length: 10 ft. 17.Filter Pack: a.Material: medium sand b.Installation Procedure: gravity 18.Well Depth: 16.5 ft. 19.Bottom of Filter Pack: 16.5 ft. 20.Bottom of Borehole: 16.5 ft. 21.Backfill Material (below filter pack): none 22.Decontamination Procedures: new material 23.Special Circumstances and Exceptions: No Variance Number 24.WV Contractor License No. WV041258</p>		

APPENDIX F

ORGANIC DATA VALIDATION REPORT – SOIL SAMPLES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: December 16, 2016

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald
Region III ESAT PO (3EA22)

TO: Justin Bleiler
RPM

Attached is the organic data validation report for the St. Albans Trailer Park site for Case/DAS#46440; SDG#C0AA2 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: Lafe Kunkel

Rebecca Patton

TO: #0002 TDF: #1116030

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ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

DATE: November 29, 2016

TO: Brandon McDonald
ESAT Region 3 Project Officer

FROM: Mahboobeh Mecanic
Data Review Chemist

Dean Gouveia
ESAT Region 3 Team Manager

SUBJECT: Organic Data Validation (Level S4VEM)
Site: St. Albans Trailer Park
Case: 46440, SDG: C0AA2

OVERVIEW

Case 46440, Sample Delivery Group (SDG) C0AA2, consisted of twelve (12) soil samples analyzed for volatile, semivolatile and semivolatile SIM (Selected Ion Monitoring) compounds. Samples were analyzed by ALS Environmental (ALS) according to the Contract Laboratory Program (CLP) Statement of Work (SOW) SOM02.3 through the Routine Analytical Services (RAS) program.

SUMMARY

Validation of data was performed with guidance from the Organic National Functional Guidelines utilizing the Environmental Data Exchange and Evaluation System (EXES) and has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). Areas of concern with respect to data usability are listed below.

Samples C0AE1 is the rinsate blank and samples C0AE0, C0AE2 and C0AE3 are the trip blanks associated with samples in this SDG. These blanks were analyzed in SDG C0AE1. Results for these blanks were used to assess field contamination for soil samples in this SDG.

MINOR PROBLEMS

Hexachlorocyclopentadiene failed precision criteria [Percent Difference (%D)] in the semivolatile continuing calibration associated with all samples. No positive results were reported for this compound. Quantitation limits for this compound in all sample have been qualified “UJ”.

Pentachlorophenol failed precision criteria (%D) in the semivolatile SIM continuing calibration associated with diluted samples C0AA0DL, C0AA2DL and C0AB3DL. The positive result for pentachlorophenol reported from sample C0AA0DL has been qualified "J".

The recovery of Deuterated Monitoring Compound (DMC) 1,2-dichloroethane-d₄ was outside the upper control limit in volatile sample C0AA4. The positive result for methylene chloride associated with this DMC in this sample has been qualified "J+".

Recoveries of DMC 1,4-dioxane-d₈ were outside the lower control limit in all semivolatile samples. No positive results were reported for 1,4-dioxane, the compound associated with this DMC. Quantitation limits for 1,4-dioxane in all samples have been qualified "UJ".

NOTES

Compounds detected below Contract Required Quantitation Limits (CRQLs) have been qualified "J" unless raised to the CRQL and qualified "U" due to blank contamination.

Acetone and /or toluene were detected in the rinsate and trip blanks at concentrations <CRQL while chloroform was detected in these blanks at concentrations >CRQL. The positive results for these compounds <CRQL have been raised to the CRQL and qualified "U".

Laboratory blanks were free of contaminations except for chloroform detected at <CRQL in the volatile holding blank. Data for chloroform have been already been qualified as mentioned above. No data were qualified based on laboratory blanks.

Based on screening, volatile samples C0AA0 and C0AA5 were initially analyzed as medium level samples. High concentrations of non-target compounds were detected in these samples. CRQLs are elevated due to medium level procedure.

The recovery of DMC 1,1,2,2-tetrachloroethane-d₂ was outside the upper control limit in volatile sample C0AA5. No positive results were reported for compounds associated with this DMC. No data were qualified based on this outlier.

The recovery of DMC 4-methylphenol-d₈ was outside the upper control limit in semivolatile samples C0AA0 and C0AA5. No positive results were reported for compounds associated with this DMC. No data were qualified based on these outliers.

Naphthalene failed Relative Response Factor (RRF) criteria for 2 out of 5 initial calibration standards in the semivolatile SIM analysis. The average RRF was within limit. No data were qualified based on these outliers.

Naphthalene failed RRF criteria in the semivolatile SIM continuing calibration standard associated with diluted samples. Naphthalene was not reported from the diluted analysis. No

data were qualified based on this outlier.

DMCs were diluted out in semivolatile SIM sample C0AB3DL. The sample reported DMC recoveries within control limit in the initial undiluted analysis. No data were qualified based on these outliers.

Several compounds exceeded the calibration range in the initial analysis of SIM samples listed

<u>Sample</u>	<u>DF</u>	<u>Compound</u>
C0AA0	4X	pentachlorophenol
C0AA2	4X	fluoranthene, pyrene, benzo(b)fluoranthene
C0AB3	8X	Phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene

below. These samples were reanalyzed at dilutions listed to bring the concentrations of the compounds within calibration range. Results for these compounds in these samples are reported from the diluted analysis.

Although samples contained concentrations greater than the upper calibration range, no carry over impacting samples in this SDG was indicated. No data were qualified based on this finding.

Benzo(b)fluoranthene exceeded the calibration range in the 8X diluted analysis of semivolatile SIM sample C0AB3. This compound was detected in the semivolatile scan analysis of this sample at a concentration above the CRQL. The result for this compound in this sample is reported from the scan analysis. The result from the SIM analysis is marked “Not Reportable” by the reviewer.

Tentatively Identified Compounds (TICs) are not reviewed by data validators. The validation qualifiers are applied by EXES electronic software based on laboratory qualifiers. By definition, all compounds identified as TICs should be treated as tentative identifications and should be considered estimated.

A sub-set of manual integrations noted in the laboratory case narrative were evaluated by the reviewer to be accurate and consistent. No action was taken by the reviewer based on manual integrations performed by the laboratory.

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- NJ The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
- C The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS).
- X The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed.

DCN: ESATR3-CY4-V339

Sample Summary Report

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA0	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: WS-1	pH:	Sample Date: 10/11/2016	Sample Time: 16:20:00
% Moisture :		% Solids : 70.916	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Chloromethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Vinyl chloride	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Bromomethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Chloroethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Acetone	Target	1600	U	ug/kg	1600	U	1.0	Yes	S4VM
Carbon disulfide	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Methyl acetate	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Methylene chloride	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
2-Butanone	Target	1600	U	ug/kg	1600	U	1.0	Yes	S4VM
Bromochloromethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Chloroform	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Cyclohexane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Benzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Trichloroethene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Methylcyclohexane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Bromodichloromethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	1600	U	ug/kg	1600	U	1.0	Yes	S4VM
Toluene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
trans-1,3-Dichloropropene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Tetrachloroethene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
2-Hexanone	Target	1600	U	ug/kg	1600	U	1.0	Yes	S4VM
Dibromochloromethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Chlorobenzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Ethylbenzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
o-Xylene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
m,p-Xylene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Styrene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Bromoform	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Isopropylbenzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	810	U	ug/kg	810	U	1.0	Yes	S4VM
Total Alkanes	TIC	160000	J	ug/kg	160000	J	1.0	Yes	NV
Benzene, 1-(1,1-dimethylethyl)-3,5-dimethyl-	TIC	1200	JN	ug/kg	1200	JN	1.0	Yes	NV
4-tert-Butyltoluene	TIC	3700	JN	ug/kg	3700	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA0	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: WS-1	pH:	Sample Date: 10/11/2016	Sample Time: 16:20:00
% Moisture :		% Solids : 70.916	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	93	UJ	ug/kg	93	U	1.0	Yes	S4VM
Benzaldehyde	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Phenol	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
2-Chlorophenol	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2-Methylphenol	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Acetophenone	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
4-Methylphenol	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Hexachloroethane	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Nitrobenzene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Isophorone	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2-Nitrophenol	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	230	J	ug/kg	230	J	1.0	Yes	S4VM
Naphthalene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
4-Chloroaniline	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Caprolactam	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	470	UJ	ug/kg	470	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2-Nitroaniline	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Dimethylphthalate	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
3-Nitroaniline	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Acenaphthene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
4-Nitrophenol	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Dibenzofuran	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Diethylphthalate	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Fluorene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
4-Nitroaniline	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Atrazine	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Pentachlorophenol	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Phenanthrene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Anthracene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Carbazole	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Fluoranthene	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Pyrene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Chrysene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	470	U	ug/kg	470	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	230	U	ug/kg	230	U	1.0	Yes	S4VM
Unknown Octatriacontyl pentafluoropropionate	TIC	140	J	ug/kg	140	J	1.0	Yes	NV
Unknown Sulfurous acid, decyl pentyl ester	TIC	140	J	ug/kg	140	J	1.0	Yes	NV
Unknown Sulfurous acid, 2-ethylhexyl nonyl ester	TIC	180	J	ug/kg	180	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-	TIC	110	JB	ug/kg	110	JB	1.0	Yes	NV
Stigmasterol	TIC	150	JN	ug/kg	150	JN	1.0	Yes	NV
Tetradecanamide	TIC	160	JN	ug/kg	160	JN	1.0	Yes	NV
Total Alkanes	TIC	180000	J	ug/kg	180000	J	1.0	Yes	NV
Benzene, 1,4-bis(1,1-dimethylethyl)-	TIC	170	JN	ug/kg	170	JN	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-4-methyl-	TIC	13000	JB	ug/kg	13000	JB	1.0	Yes	NV
Unknown Tricosyl heptafluorobutyrate	TIC	4400	J	ug/kg	4400	J	1.0	Yes	NV
1,4-Benzenedicarboxylic acid, bis(2-ethylhexyl)	TIC	380	JN	ug/kg	380	JN	1.0	Yes	NV
Unknown Heptane, 2,2,6,6-tetramethyl-4-methylene-	TIC	120	J	ug/kg	120	J	1.0	Yes	NV
Unknown 3,5-Methano-2H-cyclopenta[b]furan-2-one, 3,3a,4,	TIC	120	J	ug/kg	120	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	630	JN	ug/kg	630	JN	1.0	Yes	NV
Unknown Cyclohexanecarboxamide	TIC	98	J	ug/kg	98	J	1.0	Yes	NV
Unknown 1,2,4-Triazole, 3-mercaptop-4-phenyl-5-methyl-	TIC	100	J	ug/kg	100	J	1.0	Yes	NV
Unknown Sulfurous acid, 2-ethylhexyl hexadecyl ester	TIC	94	J	ug/kg	94	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA0	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: WS-1	pH:	Sample Date: 10/11/2016	Sample Time: 16:20:00
% Moisture :		% Solids : 70.916	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	2.9	J	ug/kg	2.9	J	1.0	Yes	S4VM
Acenaphthylene	Target	2.5	J	ug/kg	2.5	J	1.0	Yes	S4VM
Acenaphthene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Fluorene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Pentachlorophenol	Target	50	J	ug/kg	50	D	4.0	Yes	S4VM
Phenanthrene	Target	18		ug/kg	18		1.0	Yes	S4VM
Anthracene	Target	6.4		ug/kg	6.4		1.0	Yes	S4VM
Fluoranthene	Target	40		ug/kg	40		1.0	Yes	S4VM
Pyrene	Target	34		ug/kg	34		1.0	Yes	S4VM
Benzo(a)anthracene	Target	22		ug/kg	22		1.0	Yes	S4VM
Chrysene	Target	30		ug/kg	30		1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	40		ug/kg	40		1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	17		ug/kg	17		1.0	Yes	S4VM
Benzo(a)pyrene	Target	25		ug/kg	25		1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	31		ug/kg	31		1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	13		ug/kg	13		1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	29		ug/kg	29		1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA1	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SS-1	pH:	Sample Date: 10/11/2016	Sample Time: 14:05:00
% Moisture :		% Solids : 85.26	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	78	UJ	ug/kg	78	U	1.0	Yes	S4VM
Benzaldehyde	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Phenol	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
2-Chlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylphenol	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Acetophenone	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
4-Methylphenol	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachloroethane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Nitrobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Isophorone	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitrophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Naphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chloroaniline	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Caprolactam	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	390	UJ	ug/kg	390	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitroaniline	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dimethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3-Nitroaniline	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Acenaphthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
4-Nitrophenol	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Dibenzofuran	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Diethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluorene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Nitroaniline	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Atrazine	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Pentachlorophenol	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Phenanthrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Carbazole	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluoranthene	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Chrysene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	390	U	ug/kg	390	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Unknown Oxalic acid, isobutyl nonyl ester	TIC	760	J	ug/kg	760	J	1.0	Yes	NV
Unknown Decanamide-	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	70000	JB	ug/kg	70000	JB	1.0	Yes	NV
Unknown 1-Octanol, 2-butyl-	TIC	270	J	ug/kg	270	J	1.0	Yes	NV
Unknown 2-Nonanone	TIC	300	JB	ug/kg	300	JB	1.0	Yes	NV
Unknown Sulfurous acid, hexyl pentyl ester	TIC	230	J	ug/kg	230	J	1.0	Yes	NV
Unknown Pentan-2-yl 2-methylbutanoate	TIC	850	J	ug/kg	850	J	1.0	Yes	NV
13-Docosenamide, (Z)-	TIC	230	JN	ug/kg	230	JN	1.0	Yes	NV
Unknown Hydroperoxide, 1-methylethyl	TIC	270	J	ug/kg	270	J	1.0	Yes	NV
Unknown 2-Chloro-5-hydroxy-2,4,6-cycloheptatrien-1-one	TIC	140	J	ug/kg	140	J	1.0	Yes	NV
Unknown Sulfurous acid, butyl decyl ester	TIC	420	J	ug/kg	420	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	460	JN	ug/kg	460	JN	1.0	Yes	NV
Total Alkanes	TIC	68000	J	ug/kg	68000	J	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	160	JB	ug/kg	160	JB	1.0	Yes	NV
Unknown Dodecanamide	TIC	80	J	ug/kg	80	J	1.0	Yes	NV
Unknown Sulfurous acid, di(2-ethylhexyl) ester	TIC	960	J	ug/kg	960	J	1.0	Yes	NV
Unknown 4-Isopropyl-5-methylhexa-2,4-dien-1-ol	TIC	98	J	ug/kg	98	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA1	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SS-1	pH:	Sample Date: 10/11/2016	Sample Time: 14:05:00
% Moisture :		% Solids : 85.26	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.8	U	ug/kg	3.8	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	3.8	U	ug/kg	3.8	U	1.0	Yes	S4VM
Acenaphthylene	Target	3.0	J	ug/kg	3.0	J	1.0	Yes	S4VM
Acenaphthene	Target	3.8	U	ug/kg	3.8	U	1.0	Yes	S4VM
Fluorene	Target	3.8	U	ug/kg	3.8	U	1.0	Yes	S4VM
Pentachlorophenol	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VM
Phenanthrene	Target	10		ug/kg	10		1.0	Yes	S4VM
Anthracene	Target	4.1		ug/kg	4.1		1.0	Yes	S4VM
Fluoranthene	Target	34		ug/kg	34		1.0	Yes	S4VM
Pyrene	Target	32		ug/kg	32		1.0	Yes	S4VM
Benzo(a)anthracene	Target	21		ug/kg	21		1.0	Yes	S4VM
Chrysene	Target	23		ug/kg	23		1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	32		ug/kg	32		1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	11		ug/kg	11		1.0	Yes	S4VM
Benzo(a)pyrene	Target	23		ug/kg	23		1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	22		ug/kg	22		1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	7.4		ug/kg	7.4		1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	20		ug/kg	20		1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SS-1	pH:	Sample Date: 10/11/2016	Sample Time: 14:05:00
% Moisture :		% Solids : 85.26	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Chloromethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Vinyl chloride	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Bromomethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Chloroethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Acetone	Target	8.5	U	ug/kg	3.7	J	1.0	Yes	S4VM
Carbon disulfide	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Methyl acetate	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Methylene chloride	Target	0.14	J	ug/kg	0.14	J	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
2-Butanone	Target	8.5	U	ug/kg	8.5	U	1.0	Yes	S4VM
Bromochloromethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Chloroform	Target	4.3	U	ug/kg	0.56	J	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Cyclohexane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Benzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Trichloroethene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Methylcyclohexane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Bromodichloromethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	8.5	U	ug/kg	8.5	U	1.0	Yes	S4VM
Toluene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Tetrachloroethene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
2-Hexanone	Target	8.5	U	ug/kg	8.5	U	1.0	Yes	S4VM
Dibromochloromethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Chlorobenzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Ethylbenzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
o-Xylene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
m,p-Xylene	Target	0.43	J	ug/kg	0.43	J	1.0	Yes	S4VM
Styrene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Bromoform	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
Isopropylbenzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	4.3	U	ug/kg	4.3	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA2	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SS-2	pH:	Sample Date: 10/11/2016	Sample Time: 11:55:00
% Moisture :		% Solids : 88.261	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	9.8		ug/kg	9.8		1.0	Yes	S4VM
2-Methylnaphthalene	Target	13		ug/kg	13		1.0	Yes	S4VM
Acenaphthylene	Target	8.6		ug/kg	8.6		1.0	Yes	S4VM
Acenaphthene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Fluorene	Target	1.6	J	ug/kg	1.6	J	1.0	Yes	S4VM
Pentachlorophenol	Target	7.5	U	ug/kg	7.5	U	1.0	Yes	S4VM
Phenanthrene	Target	32		ug/kg	32		1.0	Yes	S4VM
Anthracene	Target	13		ug/kg	13		1.0	Yes	S4VM
Fluoranthene	Target	110		ug/kg	110	D	4.0	Yes	S4VM
Pyrene	Target	89		ug/kg	89	D	4.0	Yes	S4VM
Benzo(a)anthracene	Target	61		ug/kg	61		1.0	Yes	S4VM
Chrysene	Target	53		ug/kg	53		1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	78		ug/kg	78	D	4.0	Yes	S4VM
Benzo(k)fluoranthene	Target	25		ug/kg	25		1.0	Yes	S4VM
Benzo(a)pyrene	Target	55		ug/kg	55		1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	49		ug/kg	49		1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	14		ug/kg	14		1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	47		ug/kg	47		1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA2	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SS-2	pH:	Sample Date: 10/11/2016	Sample Time: 11:55:00
% Moisture :		% Solids : 88.261	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Chloromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Vinyl chloride	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Bromomethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Chloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Acetone	Target	9.9	U	ug/kg	9.9	U	1.0	Yes	S4VM
Carbon disulfide	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Methyl acetate	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Methylene chloride	Target	1.3	J	ug/kg	1.3	J	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
2-Butanone	Target	9.9	U	ug/kg	9.9	U	1.0	Yes	S4VM
Bromochloromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Chloroform	Target	4.9	U	ug/kg	0.53	J	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Cyclohexane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Benzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Trichloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Methylcyclohexane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Bromodichloromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	9.9	U	ug/kg	9.9	U	1.0	Yes	S4VM
Toluene	Target	4.9	U	ug/kg	0.36	J	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Tetrachloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
2-Hexanone	Target	9.9	U	ug/kg	9.9	U	1.0	Yes	S4VM
Dibromochloromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Chlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Ethylbenzene	Target	0.46	J	ug/kg	0.46	J	1.0	Yes	S4VM
o-Xylene	Target	0.49	J	ug/kg	0.49	J	1.0	Yes	S4VM
m,p-Xylene	Target	1.3	J	ug/kg	1.3	J	1.0	Yes	S4VM
Styrene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Bromoform	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Isopropylbenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA2	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SS-2	pH:	Sample Date: 10/11/2016	Sample Time: 11:55:00
% Moisture :		% Solids : 88.261	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	74	UJ	ug/kg	74	U	1.0	Yes	S4VM
Benzaldehyde	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Phenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
2-Chlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Acetophenone	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachloroethane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Nitrobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Isophorone	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitrophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Naphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chloroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Caprolactam	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	370	UJ	ug/kg	370	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitroaniline	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dimethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3-Nitroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Acenaphthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Nitrophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Dibenzofuran	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Diethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluorene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Nitroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Atrazine	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Pentachlorophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Phenanthrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Carbazole	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluoranthene	Target	79	J	ug/kg	79	J	1.0	Yes	S4VM
Pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Chrysene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	65	J	ug/kg	65	J	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Unknown Bicyclo[2.2.1]heptane-1-carboxylic acid, 7,7-dim	TIC	88	J	ug/kg	88	J	1.0	Yes	NV
Unknown Hydroperoxide, 1-methylethyl	TIC	280	J	ug/kg	280	J	1.0	Yes	NV
Unknown 4H-Imidazol-4-one, 2-amino-1,5-dihydro-	TIC	510	J	ug/kg	510	J	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	66000	JB	ug/kg	66000	JB	1.0	Yes	NV
Unknown 2-(2-Methoxyethoxy)ethyl acetate	TIC	180	J	ug/kg	180	J	1.0	Yes	NV
Unknown Methacrylamide	TIC	81	J	ug/kg	81	J	1.0	Yes	NV
Hexadecanamide	TIC	100	JN	ug/kg	100	JN	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	100	JB	ug/kg	100	JB	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	440	JN	ug/kg	440	JN	1.0	Yes	NV
13-Docosenamide, (Z)-	TIC	250	JN	ug/kg	250	JN	1.0	Yes	NV
Total Alkanes	TIC	78	J	ug/kg	78	J	1.0	Yes	NV
Unknown Benzeneethanamine, 2-fluoro-.beta.,3,4-trihydrox	TIC	77	J	ug/kg	77	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA3	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SS-3	pH:	Sample Date: 10/11/2016	Sample Time: 10:40:00
% Moisture :		% Solids : 92.1815	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Chloromethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Vinyl chloride	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Bromomethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Chloroethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Acetone	Target	9.3	U	ug/kg	4.6	J	1.0	Yes	S4VM
Carbon disulfide	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Methyl acetate	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Methylene chloride	Target	0.85	J	ug/kg	0.85	J	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
2-Butanone	Target	9.3	U	ug/kg	9.3	U	1.0	Yes	S4VM
Bromochloromethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Chloroform	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Cyclohexane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Benzene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Trichloroethene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Methylcyclohexane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Bromodichloromethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	9.3	U	ug/kg	9.3	U	1.0	Yes	S4VM
Toluene	Target	4.7	U	ug/kg	0.37	J	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Tetrachloroethene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
2-Hexanone	Target	9.3	U	ug/kg	9.3	U	1.0	Yes	S4VM
Dibromochloromethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Chlorobenzene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Ethylbenzene	Target	0.73	J	ug/kg	0.73	J	1.0	Yes	S4VM
o-Xylene	Target	0.96	J	ug/kg	0.96	J	1.0	Yes	S4VM
m,p-Xylene	Target	2.5	J	ug/kg	2.5	J	1.0	Yes	S4VM
Styrene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Bromoform	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
Isopropylbenzene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	4.7	U	ug/kg	4.7	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA3	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SS-3	pH:	Sample Date: 10/11/2016	Sample Time: 10:40:00
% Moisture :		% Solids : 92.1815	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	72	UJ	ug/kg	72	U	1.0	Yes	S4VM
Benzaldehyde	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Phenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
2-Chlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Methylphenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Acetophenone	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
4-Methylphenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachloroethane	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Nitrobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Isophorone	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Nitrophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Naphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Chloroaniline	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Caprolactam	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	360	UJ	ug/kg	360	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Nitroaniline	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Dimethylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
3-Nitroaniline	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Acenaphthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
4-Nitrophenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Dibenzofuran	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Diethylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Fluorene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Nitroaniline	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Atrazine	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Pentachlorophenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Phenanthrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Carbazole	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Fluoranthene	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Chrysene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Unknown 1,2-Ethanediol	TIC	93	J	ug/kg	93	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-4-methyl-	TIC	61000	JB	ug/kg	61000	JB	1.0	Yes	NV
Dodecanamide	TIC	95	JN	ug/kg	95	JN	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	450	JN	ug/kg	450	JN	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-	TIC	500	JB	ug/kg	500	JB	1.0	Yes	NV
Unknown 2-Nonanone	TIC	170	JB	ug/kg	170	JB	1.0	Yes	NV
Unknown 6-Isopropylquinoline	TIC	85	JB	ug/kg	85	JB	1.0	Yes	NV
Unknown 4-Isopropyl-5-methylhexa-2,4-dien-1-ol	TIC	88	J	ug/kg	88	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA3	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SS-3	pH:	Sample Date: 10/11/2016	Sample Time: 10:40:00
% Moisture :		% Solids : 92.1815	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.5	U	ug/kg	3.5	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	2.5	J	ug/kg	2.5	J	1.0	Yes	S4VM
Acenaphthylene	Target	3.1	J	ug/kg	3.1	J	1.0	Yes	S4VM
Acenaphthene	Target	3.5	U	ug/kg	3.5	U	1.0	Yes	S4VM
Fluorene	Target	3.5	U	ug/kg	3.5	U	1.0	Yes	S4VM
Pentachlorophenol	Target	7.2	U	ug/kg	7.2	U	1.0	Yes	S4VM
Phenanthrene	Target	14		ug/kg	14		1.0	Yes	S4VM
Anthracene	Target	4.0		ug/kg	4.0		1.0	Yes	S4VM
Fluoranthene	Target	31		ug/kg	31		1.0	Yes	S4VM
Pyrene	Target	27		ug/kg	27		1.0	Yes	S4VM
Benzo(a)anthracene	Target	15		ug/kg	15		1.0	Yes	S4VM
Chrysene	Target	17		ug/kg	17		1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	26		ug/kg	26		1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	8.1		ug/kg	8.1		1.0	Yes	S4VM
Benzo(a)pyrene	Target	18		ug/kg	18		1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	17		ug/kg	17		1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	3.6		ug/kg	3.6		1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	17		ug/kg	17		1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA4	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SS-4	pH:	Sample Date: 10/11/2016	Sample Time: 09:00:00
% Moisture :		% Solids : 87.493	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Acenaphthylene	Target	3.1	J	ug/kg	3.1	J	1.0	Yes	S4VM
Acenaphthene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Fluorene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Pentachlorophenol	Target	7.6	U	ug/kg	7.6	U	1.0	Yes	S4VM
Phenanthrene	Target	11		ug/kg	11		1.0	Yes	S4VM
Anthracene	Target	2.9	J	ug/kg	2.9	J	1.0	Yes	S4VM
Fluoranthene	Target	29		ug/kg	29		1.0	Yes	S4VM
Pyrene	Target	25		ug/kg	25		1.0	Yes	S4VM
Benzo(a)anthracene	Target	14		ug/kg	14		1.0	Yes	S4VM
Chrysene	Target	15		ug/kg	15		1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	23		ug/kg	23		1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	5.5		ug/kg	5.5		1.0	Yes	S4VM
Benzo(a)pyrene	Target	18		ug/kg	18		1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	15		ug/kg	15		1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	3.2	J	ug/kg	3.2	J	1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	14		ug/kg	14		1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA4	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SS-4	pH:	Sample Date: 10/11/2016	Sample Time: 09:00:00
% Moisture :		% Solids : 87.493	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	76	UJ	ug/kg	76	U	1.0	Yes	S4VM
Benzaldehyde	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Phenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
2-Chlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylphenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Acetophenone	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
4-Methylphenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachloroethane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Nitrobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Isophorone	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitrophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Naphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chloroaniline	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Caprolactam	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	380	UJ	ug/kg	380	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitroaniline	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dimethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Acenaphthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
4-Nitrophenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Dibenzofuran	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Diethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluorene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Atrazine	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Pentachlorophenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Phenanthrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Carbazole	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluoranthene	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Chrysene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Unknown Ethanamine, 2-(methylthio)-	TIC	120	J	ug/kg	120	J	1.0	Yes	NV
Unknown Butanedioic acid, (2,2-dimethylpropylidene)-	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Unknown Guanidine	TIC	64000	J	ug/kg	64000	J	1.0	Yes	NV
Unknown Fumaric acid, 2-ethoxyethyl hexyl ester	TIC	82	J	ug/kg	82	J	1.0	Yes	NV
13-Docosenamide, (Z)-	TIC	200	JN	ug/kg	200	JN	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-	TIC	250	JB	ug/kg	250	JB	1.0	Yes	NV
Unknown 2-Chloro-5-hydroxy-2,4,6-cycloheptatrien-1-one	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Total Alkanes	TIC	84	J	ug/kg	84	J	1.0	Yes	NV
Unknown 2-Nonanone	TIC	190	JB	ug/kg	190	JB	1.0	Yes	NV
Unknown Hydroperoxide, 1-methylethyl	TIC	220	J	ug/kg	220	J	1.0	Yes	NV
Dodecanamide	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	530	JN	ug/kg	530	JN	1.0	Yes	NV
.gamma.-Sitosterol	TIC	79	JN	ug/kg	79	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA4	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SS-4	pH:	Sample Date: 10/11/2016	Sample Time: 09:00:00
% Moisture :		% Solids : 87.493	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Chloromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Vinyl chloride	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Bromomethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Chloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Acetone	Target	9.9	U	ug/kg	9.9	U	1.0	Yes	S4VM
Carbon disulfide	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Methyl acetate	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Methylene chloride	Target	1.4	J+	ug/kg	1.4	J	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
2-Butanone	Target	9.9	U	ug/kg	9.9	U	1.0	Yes	S4VM
Bromochloromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Chloroform	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Cyclohexane	Target	0.51	J	ug/kg	0.51	J	1.0	Yes	S4VM
Carbon tetrachloride	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Benzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Trichloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Methylcyclohexane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Bromodichloromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	9.9	U	ug/kg	9.9	U	1.0	Yes	S4VM
Toluene	Target	4.9	U	ug/kg	0.43	J	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Tetrachloroethene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
2-Hexanone	Target	9.9	U	ug/kg	9.9	U	1.0	Yes	S4VM
Dibromochloromethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Chlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Ethylbenzene	Target	0.74	J	ug/kg	0.74	J	1.0	Yes	S4VM
o-Xylene	Target	0.73	J	ug/kg	0.73	J	1.0	Yes	S4VM
m,p-Xylene	Target	2.2	J	ug/kg	2.2	J	1.0	Yes	S4VM
Styrene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Bromoform	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
Isopropylbenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	4.9	U	ug/kg	4.9	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA5	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SS-5	pH:	Sample Date: 10/11/2016	Sample Time: 17:05:00
% Moisture :		% Solids : 77.74	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	85	UJ	ug/kg	85	U	1.0	Yes	S4VM
Benzaldehyde	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Phenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2-Methylphenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Acetophenone	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
4-Methylphenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Isophorone	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
4-Chloroaniline	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Caprolactam	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	420	UJ	ug/kg	420	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Dimethylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
3-Nitroaniline	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
4-Nitrophenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Fluorene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
4-Nitroaniline	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Atrazine	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Pentachlorophenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Carbazole	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Fluoranthene	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Pyrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	180	J	ug/kg	180	J	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Chrysene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	420	U	ug/kg	420	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VM
Unknown 2,6-Octadienoic acid, 3-methyl-, methyl ester, (	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
1,4-Benzenedicarboxylic acid, bis(2-ethylhexyl)	TIC	150	JN	ug/kg	150	JN	1.0	Yes	NV
Unknown 2-(2-Methoxyethoxy)ethyl acetate	TIC	91	J	ug/kg	91	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-4-methyl-	TIC	9600	JB	ug/kg	9600	JB	1.0	Yes	NV
Total Alkanes	TIC	60000	J	ug/kg	60000	J	1.0	Yes	NV
Unknown Sulfurous acid, nonyl 2-pentyl ester	TIC	160	J	ug/kg	160	J	1.0	Yes	NV
Unknown Sulfurous acid, decyl 2-pentyl ester	TIC	170	J	ug/kg	170	J	1.0	Yes	NV
Unknown Oxalic acid, isobutyl nonyl ester	TIC	3600	J	ug/kg	3600	J	1.0	Yes	NV
Tetradecanamide	TIC	190	JN	ug/kg	190	JN	1.0	Yes	NV
Unknown N,N'-di-tert-Butylcarbodiimide	TIC	100	J	ug/kg	100	J	1.0	Yes	NV
n-Hexadecanoic acid	TIC	140	JN	ug/kg	140	JN	1.0	Yes	NV
Unknown Pentanamide, 4-methyl-	TIC	88	J	ug/kg	88	J	1.0	Yes	NV
Unknown Isobutyl tetradecyl carbonate	TIC	1200	J	ug/kg	1200	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	670	JN	ug/kg	670	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA5	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SS-5	pH:	Sample Date: 10/11/2016	Sample Time: 17:05:00
% Moisture :		% Solids : 77.74	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Chloromethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Vinyl chloride	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Bromomethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Chloroethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Acetone	Target	1500	U	ug/kg	1500	U	1.0	Yes	S4VM
Carbon disulfide	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Methyl acetate	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Methylene chloride	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
2-Butanone	Target	1500	U	ug/kg	1500	U	1.0	Yes	S4VM
Bromochloromethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Chloroform	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Cyclohexane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Benzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Trichloroethene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Methylcyclohexane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Bromodichloromethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	1500	U	ug/kg	1500	U	1.0	Yes	S4VM
Toluene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Tetrachloroethene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
2-Hexanone	Target	1500	U	ug/kg	1500	U	1.0	Yes	S4VM
Dibromochloromethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Chlorobenzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Ethylbenzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
o-Xylene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
m,p-Xylene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Styrene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Bromoform	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Isopropylbenzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	760	U	ug/kg	760	U	1.0	Yes	S4VM
Total Alkanes	TIC	200000	J	ug/kg	200000	J	1.0	Yes	NV
Benzene, 1-(1,1-dimethylethyl)-3,5-dimethyl-	TIC	1500	JN	ug/kg	1500	JN	1.0	Yes	NV
Unknown 4-Undecene, 7-methyl-	TIC	780	J	ug/kg	780	J	1.0	Yes	NV
Nonanal	TIC	810	JN	ug/kg	810	JN	1.0	Yes	NV
4-tert-Butyltoluene	TIC	5800	JN	ug/kg	5800	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AA5	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SS-5	pH:	Sample Date: 10/11/2016	Sample Time: 17:05:00
% Moisture :		% Solids : 77.74	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	4.2	U	ug/kg	4.2	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	4.2	U	ug/kg	4.2	U	1.0	Yes	S4VM
Acenaphthylene	Target	1.8	J	ug/kg	1.8	J	1.0	Yes	S4VM
Acenaphthene	Target	4.2	U	ug/kg	4.2	U	1.0	Yes	S4VM
Fluorene	Target	4.2	U	ug/kg	4.2	U	1.0	Yes	S4VM
Pentachlorophenol	Target	8.5	U	ug/kg	8.5	U	1.0	Yes	S4VM
Phenanthrene	Target	8.4		ug/kg	8.4		1.0	Yes	S4VM
Anthracene	Target	2.9	J	ug/kg	2.9	J	1.0	Yes	S4VM
Fluoranthene	Target	25		ug/kg	25		1.0	Yes	S4VM
Pyrene	Target	23		ug/kg	23		1.0	Yes	S4VM
Benzo(a)anthracene	Target	12		ug/kg	12		1.0	Yes	S4VM
Chrysene	Target	15		ug/kg	15		1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	20		ug/kg	20		1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	6.5		ug/kg	6.5		1.0	Yes	S4VM
Benzo(a)pyrene	Target	15		ug/kg	15		1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	14		ug/kg	14		1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	2.8	J	ug/kg	2.8	J	1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	14		ug/kg	14		1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB0	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: WS-2	pH:	Sample Date: 10/11/2016	Sample Time: 14:05:00
% Moisture :		% Solids : 89.496	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Chloromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Vinyl chloride	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Bromomethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Chloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Acetone	Target	13		ug/kg	13		1.0	Yes	S4VM
Carbon disulfide	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Methyl acetate	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Methylene chloride	Target	0.22	J	ug/kg	0.22	J	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
2-Butanone	Target	8.9	U	ug/kg	8.9	U	1.0	Yes	S4VM
Bromochloromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Chloroform	Target	4.5	U	ug/kg	1.2	J	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Cyclohexane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Benzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Trichloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Methylcyclohexane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Bromodichloromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	8.9	U	ug/kg	8.9	U	1.0	Yes	S4VM
Toluene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Tetrachloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
2-Hexanone	Target	8.9	U	ug/kg	8.9	U	1.0	Yes	S4VM
Dibromochloromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Chlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Ethylbenzene	Target	0.33	J	ug/kg	0.33	J	1.0	Yes	S4VM
o-Xylene	Target	0.46	J	ug/kg	0.46	J	1.0	Yes	S4VM
m,p-Xylene	Target	1.2	J	ug/kg	1.2	J	1.0	Yes	S4VM
Styrene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Bromoform	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Isopropylbenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB0	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: WS-2	pH:	Sample Date: 10/11/2016	Sample Time: 14:05:00
% Moisture :		% Solids : 89.496	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Acenaphthylene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Acenaphthene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Fluorene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Pentachlorophenol	Target	7.5	U	ug/kg	7.5	U	1.0	Yes	S4VM
Phenanthrene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Anthracene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Fluoranthene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Pyrene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Chrysene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	2.1	J	ug/kg	2.1	J	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	2.3	J	ug/kg	2.3	J	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB0	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: WS-2	pH:	Sample Date: 10/11/2016	Sample Time: 14:05:00
% Moisture :		% Solids : 89.496	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	74	UJ	ug/kg	74	U	1.0	Yes	S4VM
Benzaldehyde	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Phenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
2-Chlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Acetophenone	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachloroethane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Nitrobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Isophorone	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitrophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Naphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chloroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Caprolactam	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	370	UJ	ug/kg	370	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitroaniline	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dimethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3-Nitroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Acenaphthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Nitrophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Dibenzofuran	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Diethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluorene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Nitroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Atrazine	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Pentachlorophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Phenanthrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Carbazole	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluoranthene	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Chrysene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Unknown 1-Naphthalenemethanamine, .alpha.-methyl-, (R)-	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
13-Docosenamide, (Z)-	TIC	210	JN	ug/kg	210	JN	1.0	Yes	NV
Unknown 1,3-Dioxolane-2-methanol, 2,4-dimethyl-	TIC	230	J	ug/kg	230	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-4-methyl-	TIC	86000	JB	ug/kg	86000	JB	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-	TIC	220	JB	ug/kg	220	JB	1.0	Yes	NV
Unknown Hydroperoxide, 1-methylethyl	TIC	320	J	ug/kg	320	J	1.0	Yes	NV
Unknown 4-Isopropyl-5-methylhexa-2,4-dien-1-ol	TIC	140	J	ug/kg	140	J	1.0	Yes	NV
Unknown cis-9,10-Epoxyoctadecanamide	TIC	84	J	ug/kg	84	J	1.0	Yes	NV
Hexadecanamide	TIC	130	JN	ug/kg	130	JN	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	560	JN	ug/kg	560	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB1	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SB-1	pH:	Sample Date: 10/11/2016	Sample Time: 14:25:00
% Moisture :		% Solids : 81.801	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	81	UJ	ug/kg	81	U	1.0	Yes	S4VM
Benzaldehyde	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Phenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Methylphenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Acetophenone	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
4-Methylphenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Isophorone	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
4-Chloroaniline	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Caprolactam	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	410	UJ	ug/kg	410	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Dimethylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
3-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
4-Nitrophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Fluorene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
4-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Atrazine	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Pentachlorophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Phenanthrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Carbazole	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Fluoranthene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Chrysene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	410	U	ug/kg	410	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Unknown 1,3-Cyclopentanedipropanoic acid, 2-oxo-, dimeth	TIC	100	J	ug/kg	100	J	1.0	Yes	NV
Unknown 2-Nonanone	TIC	200	JB	ug/kg	200	JB	1.0	Yes	NV
Unknown Lauric anhydride	TIC	270	J	ug/kg	270	J	1.0	Yes	NV
Unknown 2,7-Octanedione	TIC	300	JB	ug/kg	300	JB	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-4-methyl-	TIC	73000	JB	ug/kg	73000	JB	1.0	Yes	NV
Tetradecanamide	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV
Unknown Sulfurous acid, decyl pentyl ester	TIC	120	J	ug/kg	120	J	1.0	Yes	NV
Total Alkanes	TIC	680	J	ug/kg	680	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-	TIC	200	JB	ug/kg	200	JB	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	450	JN	ug/kg	450	JN	1.0	Yes	NV
13-Docosanamide, (Z)-	TIC	340	JN	ug/kg	340	JN	1.0	Yes	NV
Unknown 1-Naphthalenemethanamine, .alpha.-methyl-, (R)-	TIC	120	J	ug/kg	120	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB1	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SB-1	pH:	Sample Date: 10/11/2016	Sample Time: 14:25:00
% Moisture :		% Solids : 81.801	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Acenaphthylene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Acenaphthene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Fluorene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Pentachlorophenol	Target	8.2	U	ug/kg	8.2	U	1.0	Yes	S4VM
Phenanthrene	Target	3.2	J	ug/kg	3.2	J	1.0	Yes	S4VM
Anthracene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Fluoranthene	Target	5.5		ug/kg	5.5		1.0	Yes	S4VM
Pyrene	Target	5.9		ug/kg	5.9		1.0	Yes	S4VM
Benzo(a)anthracene	Target	2.6	J	ug/kg	2.6	J	1.0	Yes	S4VM
Chrysene	Target	2.9	J	ug/kg	2.9	J	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	3.7	J	ug/kg	3.7	J	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	2.3	J	ug/kg	2.3	J	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	2.4	J	ug/kg	2.4	J	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	2.5	J	ug/kg	2.5	J	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SB-1	pH:	Sample Date: 10/11/2016	Sample Time: 14:25:00
% Moisture :		% Solids : 81.801	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Chloromethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Vinyl chloride	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Bromomethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Chloroethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Acetone	Target	27		ug/kg	27		1.0	Yes	S4VM
Carbon disulfide	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Methyl acetate	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Methylene chloride	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
2-Butanone	Target	6.1	J	ug/kg	6.1	J	1.0	Yes	S4VM
Bromochloromethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Chloroform	Target	5.5	U	ug/kg	0.58	J	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Cyclohexane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Benzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Trichloroethene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Methylcyclohexane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Bromodichloromethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VM
Toluene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Tetrachloroethene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
2-Hexanone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VM
Dibromochloromethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Chlorobenzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Ethylbenzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
o-Xylene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
m,p-Xylene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Styrene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Bromoform	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
Isopropylbenzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	5.5	U	ug/kg	5.5	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB2	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SB-2	pH:	Sample Date: 10/11/2016	Sample Time: 12:20:00
% Moisture :		% Solids : 82.172	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Chloromethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Vinyl chloride	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Bromomethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Chloroethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Acetone	Target	14		ug/kg	14		1.0	Yes	S4VM
Carbon disulfide	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Methyl acetate	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Methylene chloride	Target	0.22	J	ug/kg	0.22	J	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
2-Butanone	Target	12	U	ug/kg	12	U	1.0	Yes	S4VM
Bromochloromethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Chloroform	Target	5.8	U	ug/kg	0.86	J	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Cyclohexane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Benzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Trichloroethene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Methylcyclohexane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Bromodichloromethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	12	U	ug/kg	12	U	1.0	Yes	S4VM
Toluene	Target	5.8	U	ug/kg	0.34	J	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Tetrachloroethene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
2-Hexanone	Target	12	U	ug/kg	12	U	1.0	Yes	S4VM
Dibromochloromethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Chlorobenzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Ethylbenzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
o-Xylene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
m,p-Xylene	Target	0.57	J	ug/kg	0.57	J	1.0	Yes	S4VM
Styrene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Bromoform	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
Isopropylbenzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	5.8	U	ug/kg	5.8	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB2	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SB-2	pH:	Sample Date: 10/11/2016	Sample Time: 12:20:00
% Moisture :		% Solids : 82.172	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Acenaphthylene	Target	1.7	J	ug/kg	1.7	J	1.0	Yes	S4VM
Acenaphthene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Fluorene	Target	4.0	U	ug/kg	4.0	U	1.0	Yes	S4VM
Pentachlorophenol	Target	8.1	U	ug/kg	8.1	U	1.0	Yes	S4VM
Phenanthrene	Target	2.6	J	ug/kg	2.6	J	1.0	Yes	S4VM
Anthracene	Target	2.2	J	ug/kg	2.2	J	1.0	Yes	S4VM
Fluoranthene	Target	6.2		ug/kg	6.2		1.0	Yes	S4VM
Pyrene	Target	6.5		ug/kg	6.5		1.0	Yes	S4VM
Benzo(a)anthracene	Target	4.3		ug/kg	4.3		1.0	Yes	S4VM
Chrysene	Target	5.1		ug/kg	5.1		1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	7.9		ug/kg	7.9		1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	2.7	J	ug/kg	2.7	J	1.0	Yes	S4VM
Benzo(a)pyrene	Target	5.0		ug/kg	5.0		1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	6.4		ug/kg	6.4		1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	1.6	J	ug/kg	1.6	J	1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	6.3		ug/kg	6.3		1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB2	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SB-2	pH:	Sample Date: 10/11/2016	Sample Time: 12:20:00
% Moisture :		% Solids : 82.172	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	80	UJ	ug/kg	80	U	1.0	Yes	S4VM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Phenol	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Isophorone	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	400	UJ	ug/kg	400	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Dimethylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Fluorene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Atrazine	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Phenanthrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Carbazole	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Fluoranthene	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Chrysene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	400	U	ug/kg	400	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VM
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	97000	JB	ug/kg	97000	JB	1.0	Yes	NV
1,4-Benzenedicarboxylic acid, bis(2-ethylhexyl)	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	330	JB	ug/kg	330	JB	1.0	Yes	NV
Unknown 2-Hexanone, 4-hydroxy-5-methyl-	TIC	260	J	ug/kg	260	J	1.0	Yes	NV
Total Alkanes	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Unknown 2-Chloro-5-hydroxy-2,4,6-cycloheptatrien-1-one	TIC	120	J	ug/kg	120	J	1.0	Yes	NV
Hexadecanamide	TIC	98	JN	ug/kg	98	JN	1.0	Yes	NV
Unknown 2,6-Decadienoic acid, 3-methyl-, ethyl ester, (E)	TIC	99	J	ug/kg	99	J	1.0	Yes	NV
Unknown Hydroperoxide, 1-methylethyl	TIC	380	J	ug/kg	380	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	430	JN	ug/kg	430	JN	1.0	Yes	NV
13-Docosenamide, (Z)-	TIC	240	JN	ug/kg	240	JN	1.0	Yes	NV
Unknown Benz(cd)indol-2(1H)-one, 1-methyl-	TIC	87	J	ug/kg	87	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB3	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SB-3	pH:	Sample Date: 10/11/2016	Sample Time: 10:45:00
% Moisture :		% Solids : 86.453	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.8	U	ug/kg	3.8	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	2.2	J	ug/kg	2.2	J	1.0	Yes	S4VM
Acenaphthylene	Target	7.7		ug/kg	7.7		1.0	Yes	S4VM
Acenaphthene	Target	2.9	J	ug/kg	2.9	J	1.0	Yes	S4VM
Fluorene	Target	3.4	J	ug/kg	3.4	J	1.0	Yes	S4VM
Pentachlorophenol	Target	7.6	U	ug/kg	7.6	U	1.0	Yes	S4VM
Phenanthrene	Target	72		ug/kg	72	D	8.0	Yes	S4VM
Anthracene	Target	21		ug/kg	21		1.0	Yes	S4VM
Fluoranthene	Target	260		ug/kg	260	D	8.0	Yes	S4VM
Pyrene	Target	230		ug/kg	230	D	8.0	Yes	S4VM
Benzo(a)anthracene	Target	270		ug/kg	270	D	8.0	Yes	S4VM
Chrysene	Target	260		ug/kg	260	D	8.0	Yes	S4VM
Benzo(b)fluoranthene	Target	560		ug/kg	560	ED	8.0	No	S4VM
Benzo(k)fluoranthene	Target	180		ug/kg	180	D	8.0	Yes	S4VM
Benzo(a)pyrene	Target	460		ug/kg	460	D	8.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	440		ug/kg	440	D	8.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	120		ug/kg	120	D	8.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	420		ug/kg	420	D	8.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB3	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SB-3	pH:	Sample Date: 10/11/2016	Sample Time: 10:45:00
% Moisture :		% Solids : 86.453	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	76	UJ	ug/kg	76	U	1.0	Yes	S4VM
Benzaldehyde	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Phenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
2-Chlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylphenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Acetophenone	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
4-Methylphenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachloroethane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Nitrobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Isophorone	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitrophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Naphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chloroaniline	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Caprolactam	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	380	UJ	ug/kg	380	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2-Nitroaniline	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Dimethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Acenaphthene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
4-Nitrophenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Dibenzofuran	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Diethylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluorene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Atrazine	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Pentachlorophenol	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Phenanthrene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Carbazole	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Fluoranthene	Target	180	J	ug/kg	180	J	1.0	Yes	S4VM
Pyrene	Target	160	J	ug/kg	160	J	1.0	Yes	S4VM
Butylbenzylphthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	210		ug/kg	210		1.0	Yes	S4VM
Chrysene	Target	210		ug/kg	210		1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	380	U	ug/kg	380	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	480		ug/kg	480		1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	150	J	ug/kg	150	J	1.0	Yes	S4VM
Benzo(a)pyrene	Target	350		ug/kg	350		1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	250		ug/kg	250		1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	240		ug/kg	240		1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	190	U	ug/kg	190	U	1.0	Yes	S4VM
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	79000	JB	ug/kg	79000	JB	1.0	Yes	NV
Unknown Hydroperoxide, 1-methylethyl	TIC	310	J	ug/kg	310	J	1.0	Yes	NV
Unknown 2,6-Octadienoic acid, 3-methyl-, methyl ester, (	TIC	80	J	ug/kg	80	J	1.0	Yes	NV
Unknown 2-Nonanone	TIC	220	JB	ug/kg	220	JB	1.0	Yes	NV
Unknown Methacrylamide	TIC	140	J	ug/kg	140	J	1.0	Yes	NV
Unknown 3-Penten-2-one	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Dodecanamide	TIC	92	JN	ug/kg	92	JN	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	290	JB	ug/kg	290	JB	1.0	Yes	NV
13-Docosenamide, (Z)-	TIC	390	JN	ug/kg	390	JN	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	250	JN	ug/kg	250	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB3	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SB-3	pH:	Sample Date: 10/11/2016	Sample Time: 10:45:00
% Moisture :		% Solids : 86.453	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Chloromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Vinyl chloride	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Bromomethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Chloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Acetone	Target	11		ug/kg	11		1.0	Yes	S4VM
Carbon disulfide	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Methyl acetate	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Methylene chloride	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
2-Butanone	Target	9.0	U	ug/kg	9.0	U	1.0	Yes	S4VM
Bromochloromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Chloroform	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Cyclohexane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Benzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Trichloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Methylcyclohexane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Bromodichloromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	9.0	U	ug/kg	9.0	U	1.0	Yes	S4VM
Toluene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Tetrachloroethene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
2-Hexanone	Target	9.0	U	ug/kg	9.0	U	1.0	Yes	S4VM
Dibromochloromethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Chlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Ethylbenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
o-Xylene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
m,p-Xylene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Styrene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Bromoform	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
Isopropylbenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	4.5	U	ug/kg	4.5	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB4	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SB-4	pH:	Sample Date: 10/11/2016	Sample Time: 09:05:00
% Moisture :		% Solids : 89.189	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	74	UJ	ug/kg	74	U	1.0	Yes	S4VM
Benzaldehyde	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Phenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
2-Chlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Acetophenone	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachloroethane	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Nitrobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Isophorone	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Nitrophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Naphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Chloroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Caprolactam	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	370	UJ	ug/kg	370	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Nitroaniline	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Dimethylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
3-Nitroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Acenaphthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4-Nitrophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Dibenzofuran	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Diethylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Fluorene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Nitroaniline	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Atrazine	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Pentachlorophenol	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Phenanthrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Carbazole	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Fluoranthene	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Chrysene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	370	U	ug/kg	370	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	69000	JB	ug/kg	69000	JB	1.0	Yes	NV
13-Docosenamide, (Z)-	TIC	140	JN	ug/kg	140	JN	1.0	Yes	NV
Unknown 2-Nonanone	TIC	190	JB	ug/kg	190	JB	1.0	Yes	NV
Unknown 1-Naphthalenemethanamine, .alpha.-methyl-, (R)-	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Unknown 4-Isopropyl-5-methylhexa-2,4-dien-1-ol	TIC	100	J	ug/kg	100	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	680	JN	ug/kg	680	JN	1.0	Yes	NV
Hexadecanamide	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV
Unknown Dodecanamide	TIC	82	J	ug/kg	82	J	1.0	Yes	NV
Unknown Hydroperoxide, 1-methylethyl	TIC	280	J	ug/kg	280	J	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	190	JB	ug/kg	190	JB	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB4	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SB-4	pH:	Sample Date: 10/11/2016	Sample Time: 09:05:00
% Moisture :		% Solids : 89.189	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Chloromethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Vinyl chloride	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Bromomethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Chloroethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Acetone	Target	8.8	U	ug/kg	8.4	J	1.0	Yes	S4VM
Carbon disulfide	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Methyl acetate	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Methylene chloride	Target	0.27	J	ug/kg	0.27	J	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
2-Butanone	Target	8.8	U	ug/kg	8.8	U	1.0	Yes	S4VM
Bromochloromethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Chloroform	Target	4.4	U	ug/kg	0.39	J	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Cyclohexane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Benzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Trichloroethene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Methylcyclohexane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Bromodichloromethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	8.8	U	ug/kg	8.8	U	1.0	Yes	S4VM
Toluene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Tetrachloroethene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
2-Hexanone	Target	8.8	U	ug/kg	8.8	U	1.0	Yes	S4VM
Dibromochloromethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Chlorobenzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Ethylbenzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
o-Xylene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
m,p-Xylene	Target	0.58	J	ug/kg	0.58	J	1.0	Yes	S4VM
Styrene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Bromoform	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
Isopropylbenzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	4.4	U	ug/kg	4.4	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB4	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SB-4	pH:	Sample Date: 10/11/2016	Sample Time: 09:05:00
% Moisture :		% Solids : 89.189	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Acenaphthylene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Acenaphthene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Fluorene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Pentachlorophenol	Target	7.4	U	ug/kg	7.4	U	1.0	Yes	S4VM
Phenanthrene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Anthracene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Fluoranthene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Pyrene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Chrysene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	2.8	J	ug/kg	2.8	J	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	2.0	J	ug/kg	2.0	J	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	2.2	J	ug/kg	2.2	J	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	3.7	U	ug/kg	3.7	U	1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	2.2	J	ug/kg	2.2	J	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB5	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SB-5	pH:	Sample Date: 10/11/2016	Sample Time: 17:15:00
% Moisture :		% Solids : 91.719	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
Acenaphthylene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
Acenaphthene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
Fluorene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
Pentachlorophenol	Target	7.3	U	ug/kg	7.3	U	1.0	Yes	S4VM
Phenanthrene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
Anthracene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
Fluoranthene	Target	3.3	J	ug/kg	3.3	J	1.0	Yes	S4VM
Pyrene	Target	2.4	J	ug/kg	2.4	J	1.0	Yes	S4VM
Benzo(a)anthracene	Target	2.4	J	ug/kg	2.4	J	1.0	Yes	S4VM
Chrysene	Target	2.6	J	ug/kg	2.6	J	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	4.5		ug/kg	4.5		1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	1.8	J	ug/kg	1.8	J	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	1.9	J	ug/kg	1.9	J	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	3.6	U	ug/kg	3.6	U	1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	1.7	J	ug/kg	1.7	J	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB5	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SB-5	pH:	Sample Date: 10/11/2016	Sample Time: 17:15:00
% Moisture :		% Solids : 91.719	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	73	UJ	ug/kg	73	U	1.0	Yes	S4VM
Benzaldehyde	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Phenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
2-Chlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Methylphenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Acetophenone	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
4-Methylphenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachloroethane	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Nitrobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Isophorone	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Nitrophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Naphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Chloroaniline	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Caprolactam	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	360	UJ	ug/kg	360	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2-Nitroaniline	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Dimethylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
3-Nitroaniline	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Acenaphthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
4-Nitrophenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Dibenzofuran	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Diethylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Fluorene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Nitroaniline	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Atrazine	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Pentachlorophenol	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Phenanthrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Carbazole	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Fluoranthene	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Chrysene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	360	U	ug/kg	360	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	180	U	ug/kg	180	U	1.0	Yes	S4VM
Decanamide-	TIC	130	JN	ug/kg	130	JN	1.0	Yes	NV
Unknown Sulfurous acid, hexyl 2-pentyl ester	TIC	140	J	ug/kg	140	J	1.0	Yes	NV
Total Alkanes	TIC	1200	J	ug/kg	1200	J	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	230	JB	ug/kg	230	JB	1.0	Yes	NV
13-Docosenamide, (Z)-	TIC	220	JN	ug/kg	220	JN	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	76000	JB	ug/kg	76000	JB	1.0	Yes	NV
Unknown 6-Isopropylquinoline	TIC	180	JB	ug/kg	180	JB	1.0	Yes	NV
Unknown 4-Isopropyl-5-methylhexa-2,4-dien-1-ol	TIC	91	J	ug/kg	91	J	1.0	Yes	NV
Unknown 2-Nonanone	TIC	200	JB	ug/kg	200	JB	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	780	JN	ug/kg	780	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: C0AB5	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SB-5	pH:	Sample Date: 10/11/2016	Sample Time: 17:15:00
% Moisture :		% Solids : 91.719	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Chloromethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Vinyl chloride	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Bromomethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Chloroethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Acetone	Target	18		ug/kg	18		1.0	Yes	S4VM
Carbon disulfide	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Methyl acetate	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Methylene chloride	Target	0.46	J	ug/kg	0.46	J	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
2-Butanone	Target	9.1	U	ug/kg	9.1	U	1.0	Yes	S4VM
Bromochloromethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Chloroform	Target	4.6	U	ug/kg	1.4	J	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Cyclohexane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Benzene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Trichloroethene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Methylcyclohexane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Bromodichloromethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	9.1	U	ug/kg	9.1	U	1.0	Yes	S4VM
Toluene	Target	4.6	U	ug/kg	0.23	J	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Tetrachloroethene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
2-Hexanone	Target	9.1	U	ug/kg	9.1	U	1.0	Yes	S4VM
Dibromochloromethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Chlorobenzene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Ethylbenzene	Target	0.33	J	ug/kg	0.33	J	1.0	Yes	S4VM
o-Xylene	Target	0.36	J	ug/kg	0.36	J	1.0	Yes	S4VM
m,p-Xylene	Target	1.1	J	ug/kg	1.1	J	1.0	Yes	S4VM
Styrene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Bromoform	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
Isopropylbenzene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	4.6	U	ug/kg	4.6	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: SBLK64	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Acenaphthylene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Acenaphthene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Fluorene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Pentachlorophenol	Target	6.7	U	ug/kg	6.7	U	1.0	Yes	S4VM
Phenanthrene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Anthracene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Fluoranthene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Pyrene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Chrysene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM
Benzo(g,h,i)perylene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: SBLK64	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	67	UJ	ug/kg	67	U	1.0	Yes	S4VM
Benzaldehyde	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Phenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Bis(2-chloroethyl) ether	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
2-Chlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2-Methylphenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
2,2'-Oxybis(1-chloropropane)	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Acetophenone	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
4-Methylphenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
N-Nitroso-di-n propylamine	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Hexachloroethane	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Nitrobenzene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Isophorone	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2-Nitrophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2,4-Dimethylphenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Bis(2-chloroethoxy)methane	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2,4-Dichlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Naphthalene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
4-Chloroaniline	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Hexachlorobutadiene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Caprolactam	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
4-Chloro-3-methylphenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2-Methylnaphthalene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Hexachlorocyclo-pentadiene	Target	330	UJ	ug/kg	330	U	1.0	Yes	S4VM
2,4,6-Trichlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2,4,5-Trichlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
1,1'-Biphenyl	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2-Chloronaphthalene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2-Nitroaniline	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Dimethylphthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2,6-Dinitrotoluene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
3-Nitroaniline	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Acenaphthene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2,4-Dinitrophenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
4-Nitrophenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Dibenzofuran	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2,4-Dinitrotoluene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Diethylphthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Fluorene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
4-Chlorophenyl-phenyl ether	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
4-Nitroaniline	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
4,6-Dinitro-2-methylphenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
N-Nitrosodiphenylamine	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
1,2,4,5-Tetrachlorobenzene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
4-Bromophenyl-phenylether	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Hexachlorobenzene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Atrazine	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Pentachlorophenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Phenanthrene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Anthracene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Carbazole	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Di-n-butylphthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Fluoranthene	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Pyrene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Butylbenzylphthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
3,3'-Dichlorobenzidine	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Benzo(a)anthracene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Chrysene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Bis(2-ethylhexyl)phthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Di-n-octylphthalate	Target	330	U	ug/kg	330	U	1.0	Yes	S4VM
Benzo(b)fluoranthene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Benzo(k)fluoranthene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Benzo(a)pyrene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Indeno(1,2,3-cd)pyrene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Dibenzo(a,h)anthracene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
2,3,4,6-Tetrachlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VM
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	110000	J	ug/kg	110000	J	1.0	Yes	NV
Unknown 6-Isopropylquinoline	TIC	180	J	ug/kg	180	J	1.0	Yes	NV
Unknown 2,7-Octanedione	TIC	410	J	ug/kg	410	J	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	160	J	ug/kg	160	J	1.0	Yes	NV
Unknown 2-Nonanone	TIC	280	J	ug/kg	280	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: VBLKM1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Chloromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Vinyl chloride	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Bromomethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Chloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Acetone	Target	500	U	ug/kg	500	U	1.0	Yes	S4VM
Carbon disulfide	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Methyl acetate	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Methylene chloride	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
2-Butanone	Target	500	U	ug/kg	500	U	1.0	Yes	S4VM
Bromochloromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Chloroform	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Cyclohexane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Benzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Trichloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Methylcyclohexane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Bromodichloromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	500	U	ug/kg	500	U	1.0	Yes	S4VM
Toluene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Tetrachloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
2-Hexanone	Target	500	U	ug/kg	500	U	1.0	Yes	S4VM
Dibromochloromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Chlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Ethylbenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
o-Xylene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
m,p-Xylene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Styrene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Bromoform	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Isopropylbenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: VBLKS1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Chloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Vinyl chloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Bromomethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Chloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Acetone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VM
Carbon disulfide	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Methyl acetate	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Methylene chloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
2-Butanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VM
Bromochloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Chloroform	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Cyclohexane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Benzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Trichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Methylcyclohexane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Bromodichloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VM
Toluene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Tetrachloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
2-Hexanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VM
Dibromochloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Chlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Ethylbenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
o-Xylene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
m,p-Xylene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Styrene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Bromoform	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Isopropylbenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: VHBLKM1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Chloromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Vinyl chloride	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Bromomethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Chloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Acetone	Target	500	U	ug/kg	500	U	1.0	Yes	S4VM
Carbon disulfide	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Methyl acetate	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Methylene chloride	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
2-Butanone	Target	500	U	ug/kg	500	U	1.0	Yes	S4VM
Bromochloromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Chloroform	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Cyclohexane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Benzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Trichloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Methylcyclohexane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Bromodichloromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	500	U	ug/kg	500	U	1.0	Yes	S4VM
Toluene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Tetrachloroethene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
2-Hexanone	Target	500	U	ug/kg	500	U	1.0	Yes	S4VM
Dibromochloromethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Chlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Ethylbenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
o-Xylene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
m,p-Xylene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Styrene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Bromoform	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
Isopropylbenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	250	U	ug/kg	250	U	1.0	Yes	S4VM

Case No: 46440	Contract: EPW14027	SDG No: C0AA2	Lab Code: ALS
Sample Number: VHBLKS1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Chloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Vinyl chloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Bromomethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Chloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Trichlorofluoromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Acetone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VM
Carbon disulfide	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Methyl acetate	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Methylene chloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
trans-1,2-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Methyl tert-butyl ether	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1-Dichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
cis-1,2-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
2-Butanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VM
Bromochloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Chloroform	Target	0.56	J	ug/kg	0.56	J	1.0	Yes	S4VM
1,1,1-Trichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Cyclohexane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Carbon tetrachloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Benzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Trichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Methylcyclohexane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dichloropropane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Bromodichloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
cis-1,3-Dichloropropene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
4-Methyl-2-Pentanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VM
Toluene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1,2-Trichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Tetrachloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
2-Hexanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VM
Dibromochloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dibromoethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Chlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Ethylbenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
o-Xylene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
m,p-Xylene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Styrene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Bromoform	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
Isopropylbenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,3-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,4-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VM

APPENDIX G

INORGANIC DATA VALIDATION REPORT – SOIL SAMPLES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: January 12, 2017

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald 
Region III ESAT PO (3EA22)

TO: Justin Bleiler
RPM

Attached is the inorganic data validation report for the St. Albans Trailer Park site for Case/DAS#46440; SDG#MC0AA0 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: Lafe Kunkel (Core-Env)

Rebecca Patton (Core-Env)

TO: #0002 TDF: #1116018

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ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

Date: December 2, 2016

To: Brandon McDonald
ESAT Region 3 Project Officer

From: Lisa D. Penix
Data Reviewer

Kurt Roby
Oversight Chemist

Subject: Inorganic Data Validation (S4VEM)
Site: St. Albans Trailer Park
Case: 46440 SDG: MC0AA0

Overview

Case 46440, Sample Delivery Group (SDG) MC0AA0, consisted of twelve (12) soil samples, including two (2) field duplicate pairs, analyzed for metals by ICP – MS. Analyses were performed by Chemtex (CHX) in accordance with Contract Laboratory Program (CLP) Statement of Work (SOW) ISM02.3 through the Routine Analytical Services (RAS) program.

SUMMARY

Data were validated according to inorganic National Functional Guidelines, utilizing Environmental Data Exchange and Evaluation System (EXES) and are assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). Areas of concern with respect to data usability are listed below.

Rinsate blank MC0AE1 was used in evaluating blank contamination for the associated samples in this case based on sampling date. This blank was analyzed in SDG MC0AE1. No positive results were reported in these blanks. The positive zinc (Zn) contaminant found in the analysis of the associated blank in this data set did not qualify field sample data.

MINOR PROBLEM

Percent difference (%Ds) in the ICP serial dilution analyses for samples MC0AA2 and MC0AB1 were outside control limits (>10%) for manganese (Mn). Reported concentrations for this analyte in associated samples are estimated due to possible physical or chemical interferences in the sample matrix and have been qualified “J”.

NOTES

Antimony (Sb) and selenium (Se) have been detected in laboratory blanks associated with the samples in this SDG. Samples which reported detected concentrations for these analytes less than the Contract Required Quantitation Limit (CRQL) have been reported at the CRQL and qualified "U".

Matrix spike, laboratory duplicate and laboratory control sample analyses were within control limits.

Analytes detected below CRQLs not attributed to blank contamination are estimated and have been qualified "J".

Concentrations for the following target analytes exceeded the calibration range in the initial analysis for the samples listed below. These samples were reanalyzed at dilution in order to quantitate these analytes within the calibration range, results of which were reported from the dilutions.

<u>Analyte</u>	<u>Dilution</u>	<u>Samples</u>
Mn	2X	MC0AA0
	5X	MC0AA1, MC0AA2, MC0AA3, MC0AA5, MC0AB0, MC0AB1, MC0AB2, MC0AB4, MC0AB5
	10X	MC0AA4, MC0AB3
Pb	2X	MC0AB3
Zn	10X	MC0AB3

Percent relative intensities for internal standard scandium (SC-45) were outside the upper control limit (>125%) in the initial analysis of samples MC0AA1, MC0AA2, MC0AA4, MC0AB0, MC0AB1, MC0AB2, MC0AB3, MC0AB4 and MC0AB5. No analytes associated with this internal standard were reported for these samples. No data were qualified based on these findings.

Results reported for field duplicate pair MC0AA0/MC0AA5 were within twenty (20) Relative Percent Difference (RPD), \pm CRQL for all analyte except copper (Cu) and Zn. No data were qualified based on field duplicate precision.

Results reported for field duplicate pair MC0AB0/MC0AB5 were within twenty (20) Relative Percent Difference (RPD), \pm CRQL for all analytes except chromium (Cr) and vanadium (V). No data were qualified based on field duplicate precision.

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- B The result is presumed a blank contaminant. This qualifier is used only in drinking water samples.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

DCN: ESATR3-CY4-V327

Sample Summary Report

Case No:	46440	Contract:	EPW15007	SDG No:	MC0AA0	Lab Code:	CHX
Sample Number:	LCSD91	Method:	Metals by ICP-MS	Matrix:	Soil	MA Number:	
Sample Location:	pH:			Sample Date:	Sample Time:		
% Moisture :				% Solids :	100		

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	2.2		mg/kg	2.2		1	Yes	S4VEM
Arsenic	Target	1.0		mg/kg	1.0		1	Yes	S4VEM
Barium	Target	10.3		mg/kg	10.3		1	Yes	S4VEM
Beryllium	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Cadmium	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Chromium	Target	2.1		mg/kg	2.1		1	Yes	S4VEM
Cobalt	Target	1.0		mg/kg	1.0		1	Yes	S4VEM
Copper	Target	2.2		mg/kg	2.2		1	Yes	S4VEM
Lead	Target	1.0		mg/kg	1.0		1	Yes	S4VEM
Manganese	Target	1.0		mg/kg	1.0		1	Yes	S4VEM
Nickel	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Selenium	Target	5.8		mg/kg	5.8		1	Yes	S4VEM
Silver	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Thallium	Target	1.0		mg/kg	1.0		1	Yes	S4VEM
Vanadium	Target	5.1		mg/kg	5.1		1	Yes	S4VEM
Zinc	Target	2.4		mg/kg	2.4		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA0	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: WS-1	pH:	Sample Date: 10/11/2016	Sample Time: 16:20:00
% Moisture :		% Solids : 81.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.2	U	mg/kg	0.78	J	1	Yes	S4VEM
Arsenic	Target	3.9		mg/kg	3.9		1	Yes	S4VEM
Barium	Target	97.8		mg/kg	97.8		1	Yes	S4VEM
Beryllium	Target	0.89		mg/kg	0.89		1	Yes	S4VEM
Cadmium	Target	0.25	J	mg/kg	0.25	J	1	Yes	S4VEM
Chromium	Target	11.8		mg/kg	11.8		1	Yes	S4VEM
Cobalt	Target	10.5		mg/kg	10.5		1	Yes	S4VEM
Copper	Target	27.3		mg/kg	27.3		1	Yes	S4VEM
Lead	Target	162		mg/kg	162		1	Yes	S4VEM
Manganese	Target	524	J	mg/kg	524	DX*	2	Yes	S4VEM
Nickel	Target	18.9		mg/kg	18.9		1	Yes	S4VEM
Selenium	Target	3.0	U	mg/kg	0.44	J	1	Yes	S4VEM
Silver	Target	0.61	U	mg/kg	0.61	U	1	Yes	S4VEM
Thallium	Target	0.61	U	mg/kg	0.61	U	1	Yes	S4VEM
Vanadium	Target	15.4		mg/kg	15.4		1	Yes	S4VEM
Zinc	Target	104		mg/kg	104		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA1	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SS-1	pH:	Sample Date: 10/11/2016	Sample Time: 14:05:00
% Moisture :		% Solids : 86.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.0	U	mg/kg	0.23	J	1	Yes	S4VEM
Arsenic	Target	3.8		mg/kg	3.8		1	Yes	S4VEM
Barium	Target	93.4		mg/kg	93.4		1	Yes	S4VEM
Beryllium	Target	0.89		mg/kg	0.89		1	Yes	S4VEM
Cadmium	Target	0.20	J	mg/kg	0.20	J	1	Yes	S4VEM
Chromium	Target	15.0		mg/kg	15.0		1	Yes	S4VEM
Cobalt	Target	11.5		mg/kg	11.5		1	Yes	S4VEM
Copper	Target	36.7		mg/kg	36.7		1	Yes	S4VEM
Lead	Target	27.8		mg/kg	27.8		1	Yes	S4VEM
Manganese	Target	663	J	mg/kg	663	DX*	5	Yes	S4VEM
Nickel	Target	19.7		mg/kg	19.7		1	Yes	S4VEM
Selenium	Target	2.6	U	mg/kg	0.33	J	1	Yes	S4VEM
Silver	Target	0.52	U	mg/kg	0.52	U	1	Yes	S4VEM
Thallium	Target	0.11	J	mg/kg	0.11	J	1	Yes	S4VEM
Vanadium	Target	21.2		mg/kg	21.2		1	Yes	S4VEM
Zinc	Target	77.9		mg/kg	77.9		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA2	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SS-2	pH:	Sample Date: 10/11/2016	Sample Time: 11:55:00
% Moisture :		% Solids : 89.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	0.87	U	mg/kg	0.19	J	1	Yes	S4VEM
Arsenic	Target	3.8		mg/kg	3.8		1	Yes	S4VEM
Barium	Target	118		mg/kg	118		1	Yes	S4VEM
Beryllium	Target	0.95		mg/kg	0.95		1	Yes	S4VEM
Cadmium	Target	0.18	J	mg/kg	0.18	J	1	Yes	S4VEM
Chromium	Target	14.5		mg/kg	14.5		1	Yes	S4VEM
Cobalt	Target	11.4		mg/kg	11.4		1	Yes	S4VEM
Copper	Target	20.8		mg/kg	20.8		1	Yes	S4VEM
Lead	Target	25.3		mg/kg	25.3		1	Yes	S4VEM
Manganese	Target	539	J	mg/kg	539	DX*	5	Yes	S4VEM
Nickel	Target	17.6		mg/kg	17.6		1	Yes	S4VEM
Selenium	Target	2.2	U	mg/kg	0.36	J	1	Yes	S4VEM
Silver	Target	0.44	U	mg/kg	0.44	U	1	Yes	S4VEM
Thallium	Target	0.11	J	mg/kg	0.11	J	1	Yes	S4VEM
Vanadium	Target	19.3		mg/kg	19.3		1	Yes	S4VEM
Zinc	Target	79.2		mg/kg	79.2		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA2D	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 10/11/2016	Sample Time: 11:55:00
% Moisture :		% Solids : 89.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	0.18	J	mg/kg	0.18	J	1	Yes	S4VEM
Arsenic	Target	3.9		mg/kg	3.9		1	Yes	S4VEM
Barium	Target	122		mg/kg	122		1	Yes	S4VEM
Beryllium	Target	0.95		mg/kg	0.95		1	Yes	S4VEM
Cadmium	Target	0.19	J	mg/kg	0.19	J	1	Yes	S4VEM
Chromium	Target	15.2		mg/kg	15.2		1	Yes	S4VEM
Cobalt	Target	11.8		mg/kg	11.8		1	Yes	S4VEM
Copper	Target	21.8		mg/kg	21.8		1	Yes	S4VEM
Lead	Target	25.9		mg/kg	25.9		1	Yes	S4VEM
Manganese	Target	543		mg/kg	543	D	5	Yes	S4VEM
Nickel	Target	18.4		mg/kg	18.4		1	Yes	S4VEM
Selenium	Target	0.32	J	mg/kg	0.32	J	1	Yes	S4VEM
Silver	Target	0.44	U	mg/kg	0.44	U	1	Yes	S4VEM
Thallium	Target	0.098	J	mg/kg	0.098	J	1	Yes	S4VEM
Vanadium	Target	20.0		mg/kg	20.0		1	Yes	S4VEM
Zinc	Target	81.8		mg/kg	81.8		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA2L	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 89.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	4.4	U	mg/kg	4.4	U	5	Yes	S4VEM
Arsenic	Target	3.9		mg/kg	3.9		5	Yes	S4VEM
Barium	Target	123		mg/kg	123		5	Yes	S4VEM
Beryllium	Target	1.0	J	mg/kg	1.0	J	5	Yes	S4VEM
Cadmium	Target	2.2	U	mg/kg	2.2	U	5	Yes	S4VEM
Chromium	Target	14.2		mg/kg	14.2		5	Yes	S4VEM
Cobalt	Target	11.3		mg/kg	11.3		5	Yes	S4VEM
Copper	Target	21.3		mg/kg	21.3		5	Yes	S4VEM
Lead	Target	25.3		mg/kg	25.3		5	Yes	S4VEM
Manganese	Target	768		mg/kg	768	DX*	25	Yes	S4VEM
Nickel	Target	17.8		mg/kg	17.8		5	Yes	S4VEM
Selenium	Target	10.9	U	mg/kg	10.9	U	5	Yes	S4VEM
Silver	Target	2.2	U	mg/kg	2.2	U	5	Yes	S4VEM
Thallium	Target	2.2	U	mg/kg	2.2	U	5	Yes	S4VEM
Vanadium	Target	18.7		mg/kg	18.7		5	Yes	S4VEM
Zinc	Target	82.4		mg/kg	82.4		5	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA2S	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 10/11/2016	Sample Time: 11:55:00
% Moisture :		% Solids : 89.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Spike	8.5		mg/kg	8.5		1	Yes	S4VEM
Arsenic	Spike	6.9		mg/kg	6.9		1	Yes	S4VEM
Barium	Spike	268		mg/kg	268		1	Yes	S4VEM
Beryllium	Spike	5.2		mg/kg	5.2		1	Yes	S4VEM
Cadmium	Spike	4.8		mg/kg	4.8		1	Yes	S4VEM
Chromium	Spike	31.4		mg/kg	31.4		1	Yes	S4VEM
Cobalt	Spike	54.6		mg/kg	54.6		1	Yes	S4VEM
Copper	Spike	43.1		mg/kg	43.1		1	Yes	S4VEM
Lead	Spike	26.1		mg/kg	26.1		1	Yes	S4VEM
Manganese	Spike	605		mg/kg	605	D	5	Yes	S4VEM
Nickel	Spike	60.1		mg/kg	60.1		1	Yes	S4VEM
Selenium	Spike	9.5		mg/kg	9.5		1	Yes	S4VEM
Silver	Spike	4.5		mg/kg	4.5		1	Yes	S4VEM
Thallium	Spike	4.0		mg/kg	4.0		1	Yes	S4VEM
Vanadium	Spike	62.0		mg/kg	62.0		1	Yes	S4VEM
Zinc	Spike	124		mg/kg	124		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA3	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SS-3	pH:	Sample Date: 10/11/2016	Sample Time: 10:40:00
% Moisture :		% Solids : 91.1	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	0.80	U	mg/kg	0.24	J	1	Yes	S4VEM
Arsenic	Target	4.9		mg/kg	4.9		1	Yes	S4VEM
Barium	Target	81.6		mg/kg	81.6		1	Yes	S4VEM
Beryllium	Target	0.76		mg/kg	0.76		1	Yes	S4VEM
Cadmium	Target	0.26	J	mg/kg	0.26	J	1	Yes	S4VEM
Chromium	Target	13.7		mg/kg	13.7		1	Yes	S4VEM
Cobalt	Target	10.8		mg/kg	10.8		1	Yes	S4VEM
Copper	Target	66.8		mg/kg	66.8		1	Yes	S4VEM
Lead	Target	34.2		mg/kg	34.2		1	Yes	S4VEM
Manganese	Target	583	J	mg/kg	583	DX*	5	Yes	S4VEM
Nickel	Target	17.4		mg/kg	17.4		1	Yes	S4VEM
Selenium	Target	2.0	U	mg/kg	2.0	U	1	Yes	S4VEM
Silver	Target	0.40	U	mg/kg	0.40	U	1	Yes	S4VEM
Thallium	Target	0.091	J	mg/kg	0.091	J	1	Yes	S4VEM
Vanadium	Target	16.3		mg/kg	16.3		1	Yes	S4VEM
Zinc	Target	82.6		mg/kg	82.6		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA4	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SS-4	pH:	Sample Date: 10/11/2016	Sample Time: 09:00:00
% Moisture :		% Solids : 87.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	0.99	U	mg/kg	0.20	J	1	Yes	S4VEM
Arsenic	Target	12.6		mg/kg	12.6		1	Yes	S4VEM
Barium	Target	196		mg/kg	196		1	Yes	S4VEM
Beryllium	Target	1.4		mg/kg	1.4		1	Yes	S4VEM
Cadmium	Target	0.32	J	mg/kg	0.32	J	1	Yes	S4VEM
Chromium	Target	26.0		mg/kg	26.0		1	Yes	S4VEM
Cobalt	Target	18.1		mg/kg	18.1		1	Yes	S4VEM
Copper	Target	31.0		mg/kg	31.0		1	Yes	S4VEM
Lead	Target	32.4		mg/kg	32.4		1	Yes	S4VEM
Manganese	Target	1300	J	mg/kg	1300	DX*	10	Yes	S4VEM
Nickel	Target	30.0		mg/kg	30.0		1	Yes	S4VEM
Selenium	Target	2.5	U	mg/kg	2.5	U	1	Yes	S4VEM
Silver	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Thallium	Target	0.17	J	mg/kg	0.17	J	1	Yes	S4VEM
Vanadium	Target	26.6		mg/kg	26.6		1	Yes	S4VEM
Zinc	Target	98.7		mg/kg	98.7		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AA5	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SS-5	pH:	Sample Date: 10/11/2016	Sample Time: 17:05:00
% Moisture :		% Solids : 81.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.1	U	mg/kg	0.90	J	1	Yes	S4VEM
Arsenic	Target	4.4		mg/kg	4.4		1	Yes	S4VEM
Barium	Target	86.9		mg/kg	86.9		1	Yes	S4VEM
Beryllium	Target	0.82		mg/kg	0.82		1	Yes	S4VEM
Cadmium	Target	0.31	J	mg/kg	0.31	J	1	Yes	S4VEM
Chromium	Target	13.8		mg/kg	13.8		1	Yes	S4VEM
Cobalt	Target	9.0		mg/kg	9.0		1	Yes	S4VEM
Copper	Target	36.0		mg/kg	36.0		1	Yes	S4VEM
Lead	Target	175		mg/kg	175		1	Yes	S4VEM
Manganese	Target	597	J	mg/kg	597	DX*	5	Yes	S4VEM
Nickel	Target	19.1		mg/kg	19.1		1	Yes	S4VEM
Selenium	Target	2.7	U	mg/kg	2.7	U	1	Yes	S4VEM
Silver	Target	0.55	U	mg/kg	0.55	U	1	Yes	S4VEM
Thallium	Target	0.55	U	mg/kg	0.55	U	1	Yes	S4VEM
Vanadium	Target	15.6		mg/kg	15.6		1	Yes	S4VEM
Zinc	Target	163		mg/kg	163		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB0	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: WS-2	pH:	Sample Date: 10/11/2016	Sample Time: 14:05:00
% Moisture :		% Solids : 91.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	0.83	U	mg/kg	0.19	J	1	Yes	S4VEM
Arsenic	Target	1.3		mg/kg	1.3		1	Yes	S4VEM
Barium	Target	72.1		mg/kg	72.1		1	Yes	S4VEM
Beryllium	Target	0.95		mg/kg	0.95		1	Yes	S4VEM
Cadmium	Target	0.30	J	mg/kg	0.30	J	1	Yes	S4VEM
Chromium	Target	8.4		mg/kg	8.4		1	Yes	S4VEM
Cobalt	Target	5.0		mg/kg	5.0		1	Yes	S4VEM
Copper	Target	33.0		mg/kg	33.0		1	Yes	S4VEM
Lead	Target	10.4		mg/kg	10.4		1	Yes	S4VEM
Manganese	Target	618	J	mg/kg	618	DX*	5	Yes	S4VEM
Nickel	Target	22.6		mg/kg	22.6		1	Yes	S4VEM
Selenium	Target	2.1	U	mg/kg	0.37	J	1	Yes	S4VEM
Silver	Target	0.42	U	mg/kg	0.42	U	1	Yes	S4VEM
Thallium	Target	0.42	U	mg/kg	0.42	U	1	Yes	S4VEM
Vanadium	Target	10.6		mg/kg	10.6		1	Yes	S4VEM
Zinc	Target	18.1		mg/kg	18.1		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB1	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SB-1	pH:	Sample Date: 10/11/2016	Sample Time: 14:25:00
% Moisture :		% Solids : 78.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.2	U	mg/kg	0.34	J	1	Yes	S4VEM
Arsenic	Target	3.7		mg/kg	3.7		1	Yes	S4VEM
Barium	Target	117		mg/kg	117		1	Yes	S4VEM
Beryllium	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Cadmium	Target	0.32	J	mg/kg	0.32	J	1	Yes	S4VEM
Chromium	Target	13.8		mg/kg	13.8		1	Yes	S4VEM
Cobalt	Target	12.0		mg/kg	12.0		1	Yes	S4VEM
Copper	Target	31.3		mg/kg	31.3		1	Yes	S4VEM
Lead	Target	32.4		mg/kg	32.4		1	Yes	S4VEM
Manganese	Target	670	J	mg/kg	670	DX*	5	Yes	S4VEM
Nickel	Target	27.3		mg/kg	27.3		1	Yes	S4VEM
Selenium	Target	3.0	U	mg/kg	3.0	U	1	Yes	S4VEM
Silver	Target	0.60	U	mg/kg	0.60	U	1	Yes	S4VEM
Thallium	Target	0.60	U	mg/kg	0.60	U	1	Yes	S4VEM
Vanadium	Target	19.0		mg/kg	19.0		1	Yes	S4VEM
Zinc	Target	70.1		mg/kg	70.1		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB1D	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 10/11/2016	Sample Time: 14:25:00
% Moisture :		% Solids : 78.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	0.32	J	mg/kg	0.32	J	1	Yes	S4VEM
Arsenic	Target	3.8		mg/kg	3.8		1	Yes	S4VEM
Barium	Target	116		mg/kg	116		1	Yes	S4VEM
Beryllium	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Cadmium	Target	0.32	J	mg/kg	0.32	J	1	Yes	S4VEM
Chromium	Target	13.7		mg/kg	13.7		1	Yes	S4VEM
Cobalt	Target	12.0		mg/kg	12.0		1	Yes	S4VEM
Copper	Target	31.2		mg/kg	31.2		1	Yes	S4VEM
Lead	Target	31.8		mg/kg	31.8		1	Yes	S4VEM
Manganese	Target	659		mg/kg	659	D	5	Yes	S4VEM
Nickel	Target	27.1		mg/kg	27.1		1	Yes	S4VEM
Selenium	Target	3.0	U	mg/kg	3.0	U	1	Yes	S4VEM
Silver	Target	0.60	U	mg/kg	0.60	U	1	Yes	S4VEM
Thallium	Target	0.60	U	mg/kg	0.60	U	1	Yes	S4VEM
Vanadium	Target	19.0		mg/kg	19.0		1	Yes	S4VEM
Zinc	Target	70.7		mg/kg	70.7		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB1L	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 78.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	6.0	U	mg/kg	6.0	U	5	Yes	S4VEM
Arsenic	Target	3.8		mg/kg	3.8		5	Yes	S4VEM
Barium	Target	122		mg/kg	122		5	Yes	S4VEM
Beryllium	Target	1.1	J	mg/kg	1.1	J	5	Yes	S4VEM
Cadmium	Target	3.0	U	mg/kg	3.0	U	5	Yes	S4VEM
Chromium	Target	13.4		mg/kg	13.4		5	Yes	S4VEM
Cobalt	Target	12.0		mg/kg	12.0		5	Yes	S4VEM
Copper	Target	31.5		mg/kg	31.5		5	Yes	S4VEM
Lead	Target	32.3		mg/kg	32.3		5	Yes	S4VEM
Manganese	Target	1060		mg/kg	1060	DX*	25	Yes	S4VEM
Nickel	Target	27.6		mg/kg	27.6		5	Yes	S4VEM
Selenium	Target	15.1	U	mg/kg	15.1	U	5	Yes	S4VEM
Silver	Target	3.0	U	mg/kg	3.0	U	5	Yes	S4VEM
Thallium	Target	3.0	U	mg/kg	3.0	U	5	Yes	S4VEM
Vanadium	Target	18.7		mg/kg	18.7		5	Yes	S4VEM
Zinc	Target	76.5		mg/kg	76.5		5	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB1S	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 10/11/2016	Sample Time: 14:25:00
% Moisture :		% Solids : 78.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Spike	11.9		mg/kg	11.9		1	Yes	S4VEM
Arsenic	Spike	8.2		mg/kg	8.2		1	Yes	S4VEM
Barium	Spike	328		mg/kg	328		1	Yes	S4VEM
Beryllium	Spike	7.0		mg/kg	7.0		1	Yes	S4VEM
Cadmium	Spike	6.6		mg/kg	6.6		1	Yes	S4VEM
Chromium	Spike	36.6		mg/kg	36.6		1	Yes	S4VEM
Cobalt	Spike	70.4		mg/kg	70.4		1	Yes	S4VEM
Copper	Spike	60.7		mg/kg	60.7		1	Yes	S4VEM
Lead	Spike	32.9		mg/kg	32.9		1	Yes	S4VEM
Manganese	Spike	801		mg/kg	801	D	5	Yes	S4VEM
Nickel	Spike	84.3		mg/kg	84.3		1	Yes	S4VEM
Selenium	Spike	13.1		mg/kg	13.1		1	Yes	S4VEM
Silver	Spike	6.3		mg/kg	6.3		1	Yes	S4VEM
Thallium	Spike	5.6		mg/kg	5.6		1	Yes	S4VEM
Vanadium	Spike	76.3		mg/kg	76.3		1	Yes	S4VEM
Zinc	Spike	132		mg/kg	132		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB2	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SB-2	pH:	Sample Date: 10/11/2016	Sample Time: 12:20:00
% Moisture :		% Solids : 84.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM
Arsenic	Target	3.4		mg/kg	3.4		1	Yes	S4VEM
Barium	Target	150		mg/kg	150		1	Yes	S4VEM
Beryllium	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Cadmium	Target	0.34	J	mg/kg	0.34	J	1	Yes	S4VEM
Chromium	Target	15.7		mg/kg	15.7		1	Yes	S4VEM
Cobalt	Target	14.6		mg/kg	14.6		1	Yes	S4VEM
Copper	Target	29.1		mg/kg	29.1		1	Yes	S4VEM
Lead	Target	21.4		mg/kg	21.4		1	Yes	S4VEM
Manganese	Target	864	J	mg/kg	864	DX*	5	Yes	S4VEM
Nickel	Target	25.8		mg/kg	25.8		1	Yes	S4VEM
Selenium	Target	2.6	U	mg/kg	0.33	J	1	Yes	S4VEM
Silver	Target	0.10	J	mg/kg	0.10	J	1	Yes	S4VEM
Thallium	Target	0.10	J	mg/kg	0.10	J	1	Yes	S4VEM
Vanadium	Target	25.6		mg/kg	25.6		1	Yes	S4VEM
Zinc	Target	71.0		mg/kg	71.0		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB3	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SB-3	pH:	Sample Date: 10/11/2016	Sample Time: 10:45:00
% Moisture :		% Solids : 84.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.5		mg/kg	1.5		1	Yes	S4VEM
Arsenic	Target	7.0		mg/kg	7.0		1	Yes	S4VEM
Barium	Target	229		mg/kg	229		1	Yes	S4VEM
Beryllium	Target	0.88		mg/kg	0.88		1	Yes	S4VEM
Cadmium	Target	3.1		mg/kg	3.1		1	Yes	S4VEM
Chromium	Target	44.5		mg/kg	44.5		1	Yes	S4VEM
Cobalt	Target	14.4		mg/kg	14.4		1	Yes	S4VEM
Copper	Target	227		mg/kg	227		1	Yes	S4VEM
Lead	Target	284		mg/kg	284	D	2	Yes	S4VEM
Manganese	Target	842	J	mg/kg	842	DX*	10	Yes	S4VEM
Nickel	Target	55.3		mg/kg	55.3		1	Yes	S4VEM
Selenium	Target	2.7	U	mg/kg	2.7	U	1	Yes	S4VEM
Silver	Target	0.47	J	mg/kg	0.47	J	1	Yes	S4VEM
Thallium	Target	0.12	J	mg/kg	0.12	J	1	Yes	S4VEM
Vanadium	Target	38.4		mg/kg	38.4		1	Yes	S4VEM
Zinc	Target	4390		mg/kg	4390	D	10	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB4	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SB-4	pH:	Sample Date: 10/11/2016	Sample Time: 09:05:00
% Moisture :		% Solids : 87.1	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM
Arsenic	Target	5.6		mg/kg	5.6		1	Yes	S4VEM
Barium	Target	175		mg/kg	175		1	Yes	S4VEM
Beryllium	Target	1.3		mg/kg	1.3		1	Yes	S4VEM
Cadmium	Target	0.45	J	mg/kg	0.45	J	1	Yes	S4VEM
Chromium	Target	23.7		mg/kg	23.7		1	Yes	S4VEM
Cobalt	Target	17.6		mg/kg	17.6		1	Yes	S4VEM
Copper	Target	35.8		mg/kg	35.8		1	Yes	S4VEM
Lead	Target	20.3		mg/kg	20.3		1	Yes	S4VEM
Manganese	Target	1090	J	mg/kg	1090	DX*	5	Yes	S4VEM
Nickel	Target	34.9		mg/kg	34.9		1	Yes	S4VEM
Selenium	Target	2.6	U	mg/kg	2.6	U	1	Yes	S4VEM
Silver	Target	0.52	U	mg/kg	0.52	U	1	Yes	S4VEM
Thallium	Target	0.14	J	mg/kg	0.14	J	1	Yes	S4VEM
Vanadium	Target	23.7		mg/kg	23.7		1	Yes	S4VEM
Zinc	Target	90.6		mg/kg	90.6		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: MC0AB5	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SB-5	pH:	Sample Date: 10/11/2016	Sample Time: 17:15:00
% Moisture :		% Solids : 91.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	0.88	U	mg/kg	0.88	U	1	Yes	S4VEM
Arsenic	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Barium	Target	84.5		mg/kg	84.5		1	Yes	S4VEM
Beryllium	Target	0.85		mg/kg	0.85		1	Yes	S4VEM
Cadmium	Target	0.27	J	mg/kg	0.27	J	1	Yes	S4VEM
Chromium	Target	6.4		mg/kg	6.4		1	Yes	S4VEM
Cobalt	Target	4.9		mg/kg	4.9		1	Yes	S4VEM
Copper	Target	36.3		mg/kg	36.3		1	Yes	S4VEM
Lead	Target	9.6		mg/kg	9.6		1	Yes	S4VEM
Manganese	Target	614	J	mg/kg	614	DX*	5	Yes	S4VEM
Nickel	Target	22.0		mg/kg	22.0		1	Yes	S4VEM
Selenium	Target	2.2	U	mg/kg	2.2	U	1	Yes	S4VEM
Silver	Target	0.44	U	mg/kg	0.44	U	1	Yes	S4VEM
Thallium	Target	0.44	U	mg/kg	0.44	U	1	Yes	S4VEM
Vanadium	Target	8.3		mg/kg	8.3		1	Yes	S4VEM
Zinc	Target	17.4		mg/kg	17.4		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AA0	Lab Code: CHX
Sample Number: PBSD91	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM
Arsenic	Target	0.091	J	mg/kg	0.091	J	1	Yes	S4VEM
Barium	Target	5.0	U	mg/kg	5.0	U	1	Yes	S4VEM
Beryllium	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Cadmium	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Chromium	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM
Cobalt	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Copper	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM
Lead	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Manganese	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Nickel	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Selenium	Target	0.48	J	mg/kg	0.48	J	1	Yes	S4VEM
Silver	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Thallium	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Vanadium	Target	2.5	U	mg/kg	2.5	U	1	Yes	S4VEM
Zinc	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM

APPENDIX H

ORGANIC DATA VALIDATION REPORT – GROUNDWATER AND SURFACE WATER SAMPLES

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

Environmental Sciences Center

701 Mapes Road

Fort Meade, Maryland 20755-5350



DATE: January 24, 2017

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald 
Region III ESAT PO (3EA22)

TO: Justin Bleiler
RPM

Attached is the organic data validation report for the St. Albans Trailer Park site for Case/DAS#46440; SDG#C0AC0 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: Lafe Kunkel (Core-Env)
Rebecca Patton (Core-Env)

TO: #0002 TDF: #1216011

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ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

DATE: December 29, 2016

TO: Brandon McDonald
ESAT Region 3 Project Officer

FROM: Mahboobeh Mecanic
Data Review Chemist

Kurt Roby
Oversight Chemist

SUBJECT: Organic Data Validation (Level S4VEM)
Site: St. Albans Trailer Park
Case: 46440, SDG: C0AC0

OVERVIEW

Case 46440, Sample Delivery Group (SDG) C0AC0, consisted of two (2) trip blanks and one (1) ground water sample analyzed for volatile compounds; two (2) ground water samples analyzed for volatile and semivolatile compounds; three (3) ground water samples, one (1) rinsate blank and six (6) surface water samples analyzed for volatile, semivolatile and semivolatile SIM (Selected Ion Monitoring) compounds. Samples were analyzed by ALS Environmental – Salt Lake City (ALS) according to the Contract Laboratory Program (CLP) Statement of Work (SOW) SOM02.3 and modification numbers 2520.2 and 2521.2 through the Routine Analytical Services (RAS) program. Modifications 2520.2 and 2521.2 requested lower detection limits for selected semivolatile and semivolatile SIM compounds, respectively.

SUMMARY

Validation of data was performed with guidance from the organic National Functional Guidelines utilizing the Environmental Data Exchange and Evaluation System (EXES) and has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). Areas of concern with respect to data usability are listed below.

MAJOR PROBLEM

Laboratory Control Samples (LCS) reported zero percent (0%) recovery for 2,4-dimethylphenol, 2,6-dinitrotoluene, 2-chloronaphthalene and hexachlorobutadiene in the semivolatile fraction and for 2,4-dimethylphenol and hexachlorobutadiene in the semivolatile SIM fraction. No positive results were reported for these compounds. Quantitation limits for these compounds in the respective fractions have been rejected and qualified “R”.

MINOR PROBLEM

Recoveries of Deuterated Monitoring Compounds (DMC) were outside the lower control limits for 1,4-dioxane-d₈ in semivolatile samples C0AF3 and C0AF4 and in SIM sample C0AF4 and for DMC 4-methylphenol-d₈ in semivolatile sample C0AF4. No positive results were reported for compounds associated with these DMCs in samples listed. Quantitation limits for compounds associated with these DMCs in these samples have been qualified “UJ” unless superseded by “R”.

NOTES

Compounds detected below Contract Required Quantitation Limits (CRQLs) have been qualified “J” unless raised to the CRQL and qualified “U” due to blank contamination.

Methylene chloride was detected in the trip blanks and methylene chloride, chloroform and toluene were detected in the rinsate blank. Positive results <CRQL for methylene chloride in the field samples have been raised to the CRQL and qualified “U” due to blank contamination. Chloroform and toluene were not detected in the field samples.

Laboratory blanks were free of contamination in all fractions.

Results for the field duplicate pair, samples C0AC0/C0AC4 and C0AF3/C0AF5, were comparable in all fractions.

Carbazole failed precision criteria [Percent Relative Standard Deviation (%RSD)] in the semivolatile initial calibration. No positive result was reported for this compound. No data were qualified based on this outlier.

The laboratory reported to the Region that volatile samples C0AC5, C0AF0, C0AF1, C0AF2 and C0AF4 contained sediment. The Region instructed the laboratory to proceed with the analysis of the samples.

Samples C0AC1 and C0AF3 were listed on the Chain of Custody records for Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses. However, the laboratory noted in their case narrative that MS/MSD analyses were not required for this SDG. No data were qualified based on this finding.

The sample coolers containing samples in this SDG had interior temperatures ranging from 7.0°C to 8.0 °C when received by the laboratory. The required temperature of 4°C ± 2°C has been exceeded by 1.0°C to 2.0°C. No data were qualified based on this elevated temperature outside criteria.

Tentatively Identified Compounds (TICs) are not reviewed by data validators. The validation qualifiers are applied by EXES electronic software based on laboratory qualifiers. By definition, all compounds identified as TICs should be treated as tentative identifications and should be considered estimated.

A sub-set of manual integrations noted in the laboratory case narrative were evaluated by the reviewer to be accurate and consistent. No action was taken by the reviewer based on manual integrations performed by the laboratory.

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- NJ The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
- C The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS).
- X The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed.

Sample Summary Report

Case No:	46440	Contract:	EPW14027	SDG No:	C0AC0	Lab Code:	ALS
Sample Number:	C0AC0	Method:	Semivolatiles by SIM Matrix: Water			MA Number:	2521.2
Sample Location:	SW-1	pH:	6.0	Sample Date:	10/25/2016	Sample Time:	14:00:00
% Moisture :							% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC0	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: SW-1	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 14:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	3.7	J	ug/L	3.7	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.23	J	ug/L	0.23	J	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC0	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: SW-1	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 14:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown 1-Butene, 3,3-dimethyl-	TIC	1.4	J	ug/L	1.4	J	1.0	Yes	NV
Unknown 1-Aminocyclopantanecarboxylic acid, N-ethoxycarb	TIC	0.55	J	ug/L	0.55	J	1.0	Yes	NV
Unknown Cyclopentane, bromo-	TIC	1.3	J	ug/L	1.3	J	1.0	Yes	NV
Unknown 2-[2-[2-[2-[2-[2-[2-[2-[2-Hydroxyethoxy	TIC	1.1	J	ug/L	1.1	J	1.0	Yes	NV
2-[2-[2-[2-[2-[2-[2-[2-[2-[2-(2-Hydroxyethoxy)et	TIC	1.0	JN	ug/L	1.0	JN	1.0	Yes	NV
Unknown 2-[2-[2-[2-[2-[2-[2-[2-(2-Hydroxyethoxy]ethoxy]e	TIC	0.78	J	ug/L	0.78	J	1.0	Yes	NV
Unknown Hexaethylene glycol	TIC	0.70	J	ug/L	0.70	J	1.0	Yes	NV
Unknown Octaethylene glycol monododecyl ether	TIC	0.74	J	ug/L	0.74	J	1.0	Yes	NV
Unknown Quinoline, 6-methyl-, 1-oxide	TIC	0.59	J	ug/L	0.59	J	1.0	Yes	NV
Unknown 2-[2-[2-[2-[2-[2-[2-[2-(2-Hydroxyethoxy]ethoxy]etho	TIC	0.83	J	ug/L	0.83	J	1.0	Yes	NV
Total Alkanes	TIC	3.6	JB	ug/L	3.6	JB	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC1	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: SW-2	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 13:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC1	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: SW-2	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 13:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown Tetraethylene glycol monododecyl ether	TIC	0.62	J	ug/L	0.62	J	1.0	Yes	NV
Total Alkanes	TIC	5.5	JB	ug/L	5.5	JB	1.0	Yes	NV
Unknown Quinoline, 6-methyl-, 1-oxide	TIC	0.70	J	ug/L	0.70	J	1.0	Yes	NV
Unknown Cyclopentane, bromo-	TIC	1.8	J	ug/L	1.8	J	1.0	Yes	NV
Unknown 1-Pentene, 3,3-dimethyl-	TIC	2.1	J	ug/L	2.1	J	1.0	Yes	NV
Unknown 3-Pyridinecarboxylic acid, 1,2,5,6-tetrahydro-1-	TIC	0.61	J	ug/L	0.61	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC1	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: SW-2	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 13:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	3.7	J	ug/L	3.7	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC2	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: SW-3	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown Ethanol, 2-[2-[2-[2-[p-(1,1,3,3-tetramethylbutyl	TIC	0.80	J	ug/L	0.80	J	1.0	Yes	NV
Unknown 3,6,9,12,15,18-Hexaoxabicyclo[18.3.1]tetracos-a-1	TIC	0.97	J	ug/L	0.97	J	1.0	Yes	NV
Unknown 1-Pentene, 3,3-dimethyl-	TIC	3.0	J	ug/L	3.0	J	1.0	Yes	NV
Unknown Heptaethylene glycol	TIC	1.2	J	ug/L	1.2	J	1.0	Yes	NV
Unknown Cyclopentane, bromo-	TIC	2.4	J	ug/L	2.4	J	1.0	Yes	NV
Unknown Octaethylene glycol monododecyl ether	TIC	0.71	J	ug/L	0.71	J	1.0	Yes	NV
Unknown s-Triazolo[1,5-a]pyridine, 2,5,7-trimethyl-	TIC	0.56	J	ug/L	0.56	J	1.0	Yes	NV
Unknown 2,4(1H,3H)-Quinolinedione, 3-benzoyl-3-(phenylme	TIC	0.76	J	ug/L	0.76	J	1.0	Yes	NV
Unknown 3,6,9,12,15,18-Hexaoxabicyclo[18.3.1]tetracos-a-1	TIC	0.55	J	ug/L	0.55	J	1.0	Yes	NV
Unknown 2-[2-[2-[2-[2-[2-[2-Hydroxyethoxy)ethoxy]le	TIC	1.0	J	ug/L	1.0	J	1.0	Yes	NV
Unknown 1-Aminocyclopantanecarboxylic acid, N-ethoxycarb	TIC	0.65	J	ug/L	0.65	J	1.0	Yes	NV
Total Alkanes	TIC	6.4	JB	ug/L	6.4	JB	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC2	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: SW-3	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC2	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: SW-3	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	3.2	J	ug/L	3.2	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC3	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: SW-4	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 11:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown Cyclopentane, bromo-	TIC	1.6	J	ug/L	1.6	J	1.0	Yes	NV
Total Alkanes	TIC	7.3	JB	ug/L	7.3	JB	1.0	Yes	NV
Unknown 3-Pyridinecarboxylic acid, 1,2,5,6-tetrahydro-1-	TIC	0.60	J	ug/L	0.60	J	1.0	Yes	NV
Cholesterol	TIC	1.1	JN	ug/L	1.1	JN	1.0	Yes	NV
n-Hexadecanoic acid	TIC	1.1	JN	ug/L	1.1	JN	1.0	Yes	NV
Unknown 1-Pentene, 3,3-dimethyl-	TIC	2.1	J	ug/L	2.1	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC3	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: SW-4	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 11:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	3.2	J	ug/L	3.2	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC3	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: SW-4	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 11:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC4	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: SW-5	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 14:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC4	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: SW-5	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 14:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown Heptaethylene glycol	TIC	0.51	J	ug/L	0.51	J	1.0	Yes	NV
Unknown 2-Butenoic acid, 4-nitrophenyl ester, (E)-	TIC	1.0	J	ug/L	1.0	J	1.0	Yes	NV
Unknown 1-Butene, 3,3-dimethyl-	TIC	1.3	J	ug/L	1.3	J	1.0	Yes	NV
Unknown 1-(2-Iodo-phenyl)-1,4-dihydro-2H-benzo[f]quinoli	TIC	0.56	J	ug/L	0.56	J	1.0	Yes	NV
Unknown 2-[2-[2-[2-[2-[2-[2-(2-Hydroxyethoxy)ethox	TIC	0.96	J	ug/L	0.96	J	1.0	Yes	NV
Total Alkanes	TIC	5.4	JB	ug/L	5.4	JB	1.0	Yes	NV
Unknown 4-Hydroxy-3-nitropyridine N-oxide	TIC	0.60	J	ug/L	0.60	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC4	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: SW-5	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 14:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	3.8	J	ug/L	3.8	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	0.15	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC5	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: SW-6	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 17:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	4.7	J	ug/L	4.7	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	0.89	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC5	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: SW-6	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 17:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown Cyclohexane-1,2,3-trione-1,3-dioxime	TIC	0.63	J	ug/L	0.63	J	1.0	Yes	NV
.beta.-Sitosterol	TIC	1.7	JN	ug/L	1.7	JN	1.0	Yes	NV
Unknown Cyclopentane, bromo-	TIC	2.0	J	ug/L	2.0	J	1.0	Yes	NV
Octadecanoic acid	TIC	0.51	JN	ug/L	0.51	JN	1.0	Yes	NV
Palmitoleic acid	TIC	0.82	JN	ug/L	0.82	JN	1.0	Yes	NV
Total Alkanes	TIC	5.3	J	ug/L	5.3	J	1.0	Yes	NV
17-(1,5-Dimethylhexyl)-10,13-dimethyl-2,3,4,7,8,	TIC	1.5	JN	ug/L	1.5	JN	1.0	Yes	NV
Unknown 1(2H)-Dibenzofuranone, 3,4-dihydro-8-methoxy-	TIC	1.0	J	ug/L	1.0	J	1.0	Yes	NV
Stigmasterol	TIC	1.1	JN	ug/L	1.1	JN	1.0	Yes	NV
Unknown Acetic acid, [(2-methylpropyl)thio]-	TIC	0.59	J	ug/L	0.59	J	1.0	Yes	NV
n-Hexadecanoic acid	TIC	1.2	JN	ug/L	1.2	JN	1.0	Yes	NV
Unknown 1-Butene, 3,3-dimethyl-	TIC	2.6	J	ug/L	2.6	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AC5	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: SW-6	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 17:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AE4	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: W-5	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 17:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AE4	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: W-5	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 17:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Squalene	TIC	2.1	JN	ug/L	2.1	JN	1.0	Yes	NV
Unknown 3-Pyridinecarboxylic acid, 1,2,5,6-tetrahydro-1-	TIC	0.71	J	ug/L	0.71	J	1.0	Yes	NV
Total Alkanes	TIC	3.6	JB	ug/L	3.6	JB	1.0	Yes	NV
Unknown 1,2-Ethanediol	TIC	1.4	J	ug/L	1.4	J	1.0	Yes	NV
Unknown Hexaethylene glycol	TIC	0.64	J	ug/L	0.64	J	1.0	Yes	NV
Phthalic anhydride	TIC	0.76	JN	ug/L	0.76	JN	1.0	Yes	NV
n-Hexadecanoic acid	TIC	0.57	JN	ug/L	0.57	JN	1.0	Yes	NV
Unknown Heptaethylene glycol	TIC	0.59	J	ug/L	0.59	J	1.0	Yes	NV
Unknown 1,1-Dimethyl-3-chloropropanol	TIC	2.9	J	ug/L	2.9	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AE4	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: W-5	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 17:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.84	J	ug/L	0.84	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	25		ug/L	25		1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	0.53	J	ug/L	0.53	J	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AE5	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: W-6	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 00:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.18	J	ug/L	0.18	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AE6	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: W-7	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 00:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	1.0	J	ug/L	1.0	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF0	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: TW-W	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 17:10:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	7.4	J	ug/L	7.4	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	1.1	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF1	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: TW-1	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 16:10:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	6.2	J	ug/L	6.2	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	1.2	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF1	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: TW-1	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 16:10:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Phenol	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Acetophenone	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.1	U	ug/L	2.1	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Isophorone	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Naphthalene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Fluorene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Atrazine	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Anthracene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Carbazole	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Pyrene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.6	U	ug/L	4.6	U	1.0	Yes	S4VEM
Chrysene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.2	U	ug/L	5.2	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.6	U	ug/L	4.6	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.6	U	ug/L	4.6	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.6	U	ug/L	2.6	U	1.0	Yes	S4VEM
Hexaethylene glycol	TIC	0.56	JN	ug/L	0.56	JN	1.0	Yes	NV
(+)-2-Bornanone	TIC	3.8	JN	ug/L	3.8	JN	1.0	Yes	NV
Unknown Bicyclo[2.2.1]heptan-2-ol,	TIC	0.81	J	ug/L	0.81	J	1.0	Yes	NV
Unknown 2-Fluoro-5-nitroaniline	TIC	0.80	J	ug/L	0.80	J	1.0	Yes	NV
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimethyl-	TIC	2.0	JN	ug/L	2.0	JN	1.0	Yes	NV
Unknown 1-Pentyn-3-ol, 3-methyl-	TIC	0.57	J	ug/L	0.57	J	1.0	Yes	NV
Unknown Ethene, chloro-	TIC	1.7	J	ug/L	1.7	J	1.0	Yes	NV
Unknown Tetradecanoic acid	TIC	0.58	J	ug/L	0.58	J	1.0	Yes	NV
Total Alkanes	TIC	4.1	JB	ug/L	4.1	JB	1.0	Yes	NV
Unknown Butanoic acid, 3-methyl-	TIC	1.6	J	ug/L	1.6	J	1.0	Yes	NV
p-Cymene	TIC	0.64	JN	ug/L	0.64	JN	1.0	Yes	NV
Heptaethylene glycol	TIC	0.55	JN	ug/L	0.55	JN	1.0	Yes	NV
Unknown Methacrylamide	TIC	0.55	J	ug/L	0.55	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF2	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: TW-2	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 15:25:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	8.2	J	ug/L	8.2	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	0.49	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF2	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: TW-2	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 15:25:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.3	U	ug/L	1.3	U	1.0	Yes	S4VEM
Benzaldehyde	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Phenol	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2-Methylphenol	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Acetophenone	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
4-Methylphenol	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachloroethane	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Nitrobenzene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Isophorone	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.3	R	ug/L	1.3	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Naphthalene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.3	R	ug/L	1.3	U	1.0	Yes	S4VEM
Caprolactam	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.3	R	ug/L	1.3	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.3	R	ug/L	1.3	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Acenaphthene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Dibenzofuran	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Diethylphthalate	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Fluorene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Atrazine	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Phenanthrene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Anthracene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Carbazole	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Fluoranthene	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Pyrene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	5.7	U	ug/L	5.7	U	1.0	Yes	S4VEM
Chrysene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	6.3	U	ug/L	6.3	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	5.7	U	ug/L	5.7	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	3.2	U	ug/L	3.2	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.3	U	ug/L	1.3	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	5.7	U	ug/L	5.7	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.3	U	ug/L	1.3	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF3	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: TW-3	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 13:45:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	UJ	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown N-Acetylenediamine	TIC	1.3	J	ug/L	1.3	J	1.0	Yes	NV
Unknown 1-Pentene, 3,3-dimethyl-	TIC	1.8	J	ug/L	1.8	J	1.0	Yes	NV
Total Alkanes	TIC	3.5	JB	ug/L	3.5	JB	1.0	Yes	NV
Benzoic acid, 2,4-dichloro-	TIC	3.1	JN	ug/L	3.1	JN	1.0	Yes	NV
Unknown 4-Imidazolidinone, 2-thioxo-	TIC	0.52	J	ug/L	0.52	J	1.0	Yes	NV
Unknown Cyclopentane, bromo-	TIC	1.4	J	ug/L	1.4	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF3	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: TW-3	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 13:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF3	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: TW-3	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 13:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	0.46	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF4	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: TW-4	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 11:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	UJ	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	UJ	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	UJ	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Cyclic octaatomic sulfur	TIC	1.1	JN	ug/L	1.1	JN	1.0	Yes	NV
Total Alkanes	TIC	3.0	JB	ug/L	3.0	JB	1.0	Yes	NV
Unknown Acetic acid, anhydride with formic acid	TIC	1.4	J	ug/L	1.4	J	1.0	Yes	NV
Benzoic acid, 2,4-dichloro-	TIC	3.3	JN	ug/L	3.3	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF4	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: TW-4	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 11:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	UJ	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF4	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: TW-4	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 11:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	0.49	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF5	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: TW-5	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 13:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown Cyclopentane, bromo-	TIC	1.3	J	ug/L	1.3	J	1.0	Yes	NV
Unknown Ethene, chloro-	TIC	1.4	J	ug/L	1.4	J	1.0	Yes	NV
Benzoic acid, 2,4-dichloro-	TIC	3.7	JN	ug/L	3.7	JN	1.0	Yes	NV
Total Alkanes	TIC	2.4	JB	ug/L	2.4	JB	1.0	Yes	NV
Unknown 3-Butyn-2-ol, 2-methyl-	TIC	1.6	J	ug/L	1.6	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF5	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: TW-5	pH: 6.0	Sample Date: 10/25/2016	Sample Time: 13:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	R	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: C0AF5	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: TW-5	pH: 1.0	Sample Date: 10/25/2016	Sample Time: 13:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	0.49	J	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: SBLK74	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Total Alkanes	TIC	6.7	J	ug/L	6.7	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: SBLK76	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: SLCS75	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Spike	1.4	J	ug/L	1.4	J	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Spike	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Spike	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Spike	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	1.0	J	ug/L	1.0	J	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Spike	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	0.93	J	ug/L	0.93	J	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Spike	1.7	J	ug/L	1.7	J	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Spike	1.7	J	ug/L	1.7	J	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Spike	0.49	J	ug/L	0.49	J	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Spike	1.6	J	ug/L	1.6	J	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Spike	0.43	J	ug/L	0.43	J	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Spike	0.42	J	ug/L	0.42	J	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: SLCS77	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,4-Dimethylphenol	Spike	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Spike	0.17	J	ug/L	0.17	J	1.0	Yes	S4VEM
1,4-Dioxane	Spike	0.075	J	ug/L	0.075	J	1.0	Yes	S4VEM
Benzo(a)pyrene	Spike	0.19	J	ug/L	0.19	J	1.0	Yes	S4VEM
Hexachlorobutadiene	Spike	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Spike	0.18	J	ug/L	0.18	J	1.0	Yes	S4VEM
2-Chloronaphthalene	Spike	0.12	J	ug/L	0.12	J	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: VBLKW1	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: VBLKW2	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AC0	Lab Code: ALS
Sample Number: VHBLKW1	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

APPENDIX I

INORGANIC DATA VALIDATION REPORT – GROUNDWATER AND SURFACE WATER SAMPLES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: December 20, 2016

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald 
Region III ESAT PO (3EA22)

TO: Justin Bleiler
RPM

Attached is the inorganic data validation report for the St. Albans Trailer Park site for Case/DAS#46440; SDG#MC0AC0 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: Lafe Kunkel (Core-Env)
Rebecca Patton (Core-Env)

TO: #0002 TDF: #1116062

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ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

Date: December 15, 2016

To: Brandon McDonald
ESAT Region 3 Project Officer

From: Mahboobeh Mecanic
Data Review Chemist

Kurt Roby
Oversight Chemist

Subject: Inorganic Data Validation (S4VEM)
Site: St. Albans Trailer Park
Case: 46440, SDG: MC0AC0

OVERVIEW

Case 46440, Sample Delivery Group (SDG) MC0AC0, consisted of one (1) rinsate blank, six (6) surface water samples including one (1) field duplicate pair and three (3) ground water samples including one (1) field duplicate pair analyzed for total metals by ICP MS. All samples were analyzed by Chemtex (CHX) according to Contract Laboratory Program (CLP) Statement of Work (SOW) ISM02.3 through the Routine Analytical Services (RAS) program.

SUMMARY

Validation of data was performed with guidance from the Inorganic National Functional Guidelines utilizing the Environmental Data Exchange and Evaluation System (EXES) and has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). No areas of concern with respect to data usability were noted during the validation.

NOTES

Analytes detected below Contract Required Quantitation Limit (CRQL) have been qualified “J” unless raised to the CRQL and qualified “U” due to blank contamination.

Continuing Calibration Blanks (CCB) reported positive results greater than Method Detection Limit (>MDL) but <CRQL for selenium (Se). Positive results for this analyte <CRQL in samples MC0AF3 and MC0AF5 have been raised to the CRQL and qualified “U” due to blank contamination.

The rinsate blank, sample MC0AE4, reported positive results >CRQL (1.4X to 20X CRQL) for aluminum (Al), calcium (Ca), magnesium (Mg), potassium, sodium (Na) and zinc (Zn) and <CRQL for barium (Ba), chromium (Cr), copper (Cu), manganese (Mn) and nickel (Ni). Due to the very high concentrations of analytes in the rinsate blank and apparent gross contamination, the rinsate blank results were not used to qualify field sample results.

Results for the field duplicate pairs, samples MC0AC0/MC0AC4 and MC0AF3/MC0AF5 were comparable, except for Al in MC0AF3/MC0AF5 pair.

Calcium and/or Mn exceeded the calibration range in the initial analysis of samples listed below. These samples were reanalyzed at dilution factors (DF) listed to bring the concentration of the analyte within the calibration range. Results for these analytes in these samples have been reported from the diluted analysis.

<u>Sample</u>	<u>DF</u>	<u>Analyte</u>
MC0AC0, MC0AC1, MC0AC4	2X	Ca
MC0AC2	2X	Ca, Mn
MC0AC3, MC0AC5, MC0AF3, MC0AF5	10X	Ca, Mn
MC0AF4	10X	Mn

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- B The result is presumed a blank contaminant. This qualifier is used only for drinking water samples.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Summary Report

Case No:	46440	Contract:	EPW15007	SDG No:	MC0AC0	Lab Code:	CHX
Sample Number:	LCSD97	Method:	Metals by ICP-MS	Matrix:	Water	MA Number:	
Sample Location:	pH:		Sample Date:		Sample Time:		
% Moisture :			% Solids : 100				

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	44.5		ug/L	44.5		1	Yes	S4VEM
Antimony	Target	4.1		ug/L	4.1		1	Yes	S4VEM
Arsenic	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Barium	Target	20.5		ug/L	20.5		1	Yes	S4VEM
Beryllium	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Cadmium	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Calcium	Target	1020		ug/L	1020		1	Yes	S4VEM
Chromium	Target	3.9		ug/L	3.9		1	Yes	S4VEM
Cobalt	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Copper	Target	4.2		ug/L	4.2		1	Yes	S4VEM
Iron	Target	413		ug/L	413		1	Yes	S4VEM
Lead	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Magnesium	Target	1100		ug/L	1100		1	Yes	S4VEM
Manganese	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Nickel	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Potassium	Target	1090		ug/L	1090		1	Yes	S4VEM
Selenium	Target	10.8		ug/L	10.8		1	Yes	S4VEM
Silver	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Sodium	Target	1100		ug/L	1100		1	Yes	S4VEM
Thallium	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Vanadium	Target	10.5		ug/L	10.5		1	Yes	S4VEM
Zinc	Target	4.3		ug/L	4.3		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC0	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: SW-1	pH:	Sample Date: 10/25/2016	Sample Time: 14:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	128		ug/L	128		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	0.64	J	ug/L	0.64	J	1	Yes	S4VEM
Barium	Target	104		ug/L	104		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	75900		ug/L	75900	D	2	Yes	S4VEM
Chromium	Target	0.65	J	ug/L	0.65	J	1	Yes	S4VEM
Cobalt	Target	0.54	J	ug/L	0.54	J	1	Yes	S4VEM
Copper	Target	2.6		ug/L	2.6		1	Yes	S4VEM
Iron	Target	455		ug/L	455		1	Yes	S4VEM
Lead	Target	0.62	J	ug/L	0.62	J	1	Yes	S4VEM
Magnesium	Target	13900		ug/L	13900		1	Yes	S4VEM
Manganese	Target	397		ug/L	397		1	Yes	S4VEM
Nickel	Target	1.2		ug/L	1.2		1	Yes	S4VEM
Potassium	Target	3930		ug/L	3930		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	31000		ug/L	31000		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	5.3		ug/L	5.3		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC1	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: SW-2	pH:	Sample Date: 10/25/2016	Sample Time: 13:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	26.7		ug/L	26.7		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	0.54	J	ug/L	0.54	J	1	Yes	S4VEM
Barium	Target	97.4		ug/L	97.4		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	71800		ug/L	71800	D	2	Yes	S4VEM
Chromium	Target	0.37	J	ug/L	0.37	J	1	Yes	S4VEM
Cobalt	Target	0.26	J	ug/L	0.26	J	1	Yes	S4VEM
Copper	Target	1.8	J	ug/L	1.8	J	1	Yes	S4VEM
Iron	Target	154	J	ug/L	154	J	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	13100		ug/L	13100		1	Yes	S4VEM
Manganese	Target	335		ug/L	335		1	Yes	S4VEM
Nickel	Target	0.76	J	ug/L	0.76	J	1	Yes	S4VEM
Potassium	Target	3870		ug/L	3870		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	28800		ug/L	28800		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	3.0		ug/L	3.0		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC1D	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date: 10/25/2016	Sample Time: 13:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	23.9		ug/L	23.9		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	0.86	J	ug/L	0.86	J	1	Yes	S4VEM
Barium	Target	99.5		ug/L	99.5		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	72600		ug/L	72600	D	2	Yes	S4VEM
Chromium	Target	0.39	J	ug/L	0.39	J	1	Yes	S4VEM
Cobalt	Target	0.27	J	ug/L	0.27	J	1	Yes	S4VEM
Copper	Target	1.9	J	ug/L	1.9	J	1	Yes	S4VEM
Iron	Target	152	J	ug/L	152	J	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	13200		ug/L	13200		1	Yes	S4VEM
Manganese	Target	339		ug/L	339		1	Yes	S4VEM
Nickel	Target	0.83	J	ug/L	0.83	J	1	Yes	S4VEM
Potassium	Target	3730		ug/L	3730		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	28900		ug/L	28900		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	2.7		ug/L	2.7		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC1L	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	100	U	ug/L	100	U	5	Yes	S4VEM
Antimony	Target	10.0	U	ug/L	10.0	U	5	Yes	S4VEM
Arsenic	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Barium	Target	101		ug/L	101		5	Yes	S4VEM
Beryllium	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Cadmium	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Calcium	Target	69600		ug/L	69600	D	10	Yes	S4VEM
Chromium	Target	10.0	U	ug/L	10.0	U	5	Yes	S4VEM
Cobalt	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Copper	Target	2.1	J	ug/L	2.1	J	5	Yes	S4VEM
Iron	Target	140	J	ug/L	140	J	5	Yes	S4VEM
Lead	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Magnesium	Target	13700		ug/L	13700		5	Yes	S4VEM
Manganese	Target	322		ug/L	322		5	Yes	S4VEM
Nickel	Target	1.2	J	ug/L	1.2	J	5	Yes	S4VEM
Potassium	Target	3990		ug/L	3990		5	Yes	S4VEM
Selenium	Target	25.0	U	ug/L	25.0	U	5	Yes	S4VEM
Silver	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Sodium	Target	29400		ug/L	29400		5	Yes	S4VEM
Thallium	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Vanadium	Target	25.0	U	ug/L	25.0	U	5	Yes	S4VEM
Zinc	Target	6.5	J	ug/L	6.5	J	5	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC1S	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date: 10/25/2016	Sample Time: 13:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Spike	102		ug/L	102		1	Yes	S4VEM
Arsenic	Spike	41.7		ug/L	41.7		1	Yes	S4VEM
Barium	Spike	2180		ug/L	2180		1	Yes	S4VEM
Beryllium	Spike	51.1		ug/L	51.1		1	Yes	S4VEM
Cadmium	Spike	56.3		ug/L	56.3		1	Yes	S4VEM
Chromium	Spike	204		ug/L	204		1	Yes	S4VEM
Cobalt	Spike	578		ug/L	578		1	Yes	S4VEM
Copper	Spike	268		ug/L	268		1	Yes	S4VEM
Lead	Spike	22.3		ug/L	22.3		1	Yes	S4VEM
Manganese	Spike	920		ug/L	920		1	Yes	S4VEM
Nickel	Spike	535		ug/L	535		1	Yes	S4VEM
Selenium	Spike	107		ug/L	107		1	Yes	S4VEM
Silver	Spike	52.7		ug/L	52.7		1	Yes	S4VEM
Thallium	Spike	55.6		ug/L	55.6		1	Yes	S4VEM
Vanadium	Spike	564		ug/L	564		1	Yes	S4VEM
Zinc	Spike	552		ug/L	552		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC2	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: SW-3	pH:	Sample Date: 10/25/2016	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	146		ug/L	146		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	1.4		ug/L	1.4		1	Yes	S4VEM
Barium	Target	104		ug/L	104		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	72500		ug/L	72500	D	2	Yes	S4VEM
Chromium	Target	0.57	J	ug/L	0.57	J	1	Yes	S4VEM
Cobalt	Target	0.45	J	ug/L	0.45	J	1	Yes	S4VEM
Copper	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Iron	Target	896		ug/L	896		1	Yes	S4VEM
Lead	Target	0.52	J	ug/L	0.52	J	1	Yes	S4VEM
Magnesium	Target	13000		ug/L	13000		1	Yes	S4VEM
Manganese	Target	599		ug/L	599	D	2	Yes	S4VEM
Nickel	Target	0.96	J	ug/L	0.96	J	1	Yes	S4VEM
Potassium	Target	3620		ug/L	3620		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	27500		ug/L	27500		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	4.2		ug/L	4.2		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC3	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: SW-4	pH:	Sample Date: 10/25/2016	Sample Time: 11:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	18.0	J	ug/L	18.0	J	1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	1.4		ug/L	1.4		1	Yes	S4VEM
Barium	Target	104		ug/L	104		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	256000		ug/L	256000	D	10	Yes	S4VEM
Chromium	Target	0.37	J	ug/L	0.37	J	1	Yes	S4VEM
Cobalt	Target	0.91	J	ug/L	0.91	J	1	Yes	S4VEM
Copper	Target	3.5		ug/L	3.5		1	Yes	S4VEM
Iron	Target	212		ug/L	212		1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	31400		ug/L	31400		1	Yes	S4VEM
Manganese	Target	903		ug/L	903	D	10	Yes	S4VEM
Nickel	Target	0.71	J	ug/L	0.71	J	1	Yes	S4VEM
Potassium	Target	7440		ug/L	7440		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	19300		ug/L	19300		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	7.9		ug/L	7.9		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC4	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: SW-5	pH:	Sample Date: 10/25/2016	Sample Time: 14:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	116		ug/L	116		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	0.80	J	ug/L	0.80	J	1	Yes	S4VEM
Barium	Target	105		ug/L	105		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	75200		ug/L	75200	D	2	Yes	S4VEM
Chromium	Target	0.63	J	ug/L	0.63	J	1	Yes	S4VEM
Cobalt	Target	0.43	J	ug/L	0.43	J	1	Yes	S4VEM
Copper	Target	2.3		ug/L	2.3		1	Yes	S4VEM
Iron	Target	395		ug/L	395		1	Yes	S4VEM
Lead	Target	0.56	J	ug/L	0.56	J	1	Yes	S4VEM
Magnesium	Target	13800		ug/L	13800		1	Yes	S4VEM
Manganese	Target	371		ug/L	371		1	Yes	S4VEM
Nickel	Target	0.95	J	ug/L	0.95	J	1	Yes	S4VEM
Potassium	Target	3870		ug/L	3870		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	29700		ug/L	29700		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	5.0		ug/L	5.0		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AC5	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: SW-6	pH:	Sample Date: 10/25/2016	Sample Time: 17:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	54.2		ug/L	54.2		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	2.3		ug/L	2.3		1	Yes	S4VEM
Barium	Target	122		ug/L	122		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	220000		ug/L	220000	D	10	Yes	S4VEM
Chromium	Target	0.34	J	ug/L	0.34	J	1	Yes	S4VEM
Cobalt	Target	0.80	J	ug/L	0.80	J	1	Yes	S4VEM
Copper	Target	2.3		ug/L	2.3		1	Yes	S4VEM
Iron	Target	279		ug/L	279		1	Yes	S4VEM
Lead	Target	0.22	J	ug/L	0.22	J	1	Yes	S4VEM
Magnesium	Target	30500		ug/L	30500		1	Yes	S4VEM
Manganese	Target	1570		ug/L	1570	D	10	Yes	S4VEM
Nickel	Target	0.51	J	ug/L	0.51	J	1	Yes	S4VEM
Potassium	Target	10300		ug/L	10300		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	20100		ug/L	20100		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	7.6		ug/L	7.6		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AE4	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: W-5	pH:	Sample Date: 10/25/2016	Sample Time: 17:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	154		ug/L	154		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Barium	Target	9.7	J	ug/L	9.7	J	1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	10000		ug/L	10000		1	Yes	S4VEM
Chromium	Target	0.41	J	ug/L	0.41	J	1	Yes	S4VEM
Cobalt	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Copper	Target	0.91	J	ug/L	0.91	J	1	Yes	S4VEM
Iron	Target	200	U	ug/L	200	U	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	1800		ug/L	1800		1	Yes	S4VEM
Manganese	Target	0.55	J	ug/L	0.55	J	1	Yes	S4VEM
Nickel	Target	0.29	J	ug/L	0.29	J	1	Yes	S4VEM
Potassium	Target	704		ug/L	704		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	4850		ug/L	4850		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	17.8		ug/L	17.8		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AF3	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: TW-3	pH:	Sample Date: 10/25/2016	Sample Time: 13:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	49.1		ug/L	49.1		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Barium	Target	104		ug/L	104		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	161000		ug/L	161000	D	10	Yes	S4VEM
Chromium	Target	0.46	J	ug/L	0.46	J	1	Yes	S4VEM
Cobalt	Target	0.51	J	ug/L	0.51	J	1	Yes	S4VEM
Copper	Target	2.8		ug/L	2.8		1	Yes	S4VEM
Iron	Target	200	U	ug/L	200	U	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	30600		ug/L	30600		1	Yes	S4VEM
Manganese	Target	942		ug/L	942	D	10	Yes	S4VEM
Nickel	Target	1.4		ug/L	1.4		1	Yes	S4VEM
Potassium	Target	4330		ug/L	4330		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	0.79	J	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	41100		ug/L	41100		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	8.4		ug/L	8.4		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AF4	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: TW-4	pH:	Sample Date: 10/25/2016	Sample Time: 11:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	16.8	J	ug/L	16.8	J	1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	25.0		ug/L	25.0		1	Yes	S4VEM
Barium	Target	1450		ug/L	1450		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	42500		ug/L	42500		1	Yes	S4VEM
Chromium	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Cobalt	Target	0.16	J	ug/L	0.16	J	1	Yes	S4VEM
Copper	Target	0.46	J	ug/L	0.46	J	1	Yes	S4VEM
Iron	Target	21700		ug/L	21700		1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	7410		ug/L	7410		1	Yes	S4VEM
Manganese	Target	2710		ug/L	2710	D	10	Yes	S4VEM
Nickel	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Potassium	Target	730		ug/L	730		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	11100		ug/L	11100		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	2.1		ug/L	2.1		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: MC0AF5	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: TW-5	pH:	Sample Date: 10/25/2016	Sample Time: 13:45:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	27.7		ug/L	27.7		1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	0.47	J	ug/L	0.47	J	1	Yes	S4VEM
Barium	Target	108		ug/L	108		1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	164000		ug/L	164000	D	10	Yes	S4VEM
Chromium	Target	0.36	J	ug/L	0.36	J	1	Yes	S4VEM
Cobalt	Target	0.53	J	ug/L	0.53	J	1	Yes	S4VEM
Copper	Target	2.9		ug/L	2.9		1	Yes	S4VEM
Iron	Target	200	U	ug/L	200	U	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	31000		ug/L	31000		1	Yes	S4VEM
Manganese	Target	953		ug/L	953	D	10	Yes	S4VEM
Nickel	Target	1.4		ug/L	1.4		1	Yes	S4VEM
Potassium	Target	4530		ug/L	4530		1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	0.95	J	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	42000		ug/L	42000		1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	5.8		ug/L	5.8		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AC0	Lab Code: CHX
Sample Number: PBWD97	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	20.0	U	ug/L	20.0	U	1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Barium	Target	10.0	U	ug/L	10.0	U	1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Chromium	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Cobalt	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Copper	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Iron	Target	200	U	ug/L	200	U	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Manganese	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Nickel	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Potassium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM

APPENDIX J

ORGANIC DATA VALIDATION REPORT – SEDIMENT SAMPLES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: January 12, 2017

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald
Region III ESAT PO (3EA22)

A handwritten signature in blue ink that appears to read "Brandon McDonald".

TO: Justin Bleiler
RPM

Attached is the organic data validation report for the St. Albans Trailer Park site for Case/DAS#46440; SDG#C0AD0 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: Lafe Kunkel

Rebecca Patton

TO: #0002 TDF: #1116091

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ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

DATE: January 3, 2017

TO: Brandon McDonald
ESAT Region 3 Project Officer

FROM: Mahboobeh Mecanic
Data Review Chemist

Dean Gouveia
Oversight Chemist

SUBJECT: Organic Data Validation (Level S4VEM)
Site: St. Albans Trailer Park
Case: 46440, SDG: C0AD0

OVERVIEW

Case 46440, Sample Delivery Group (SDG) C0AD0, consisted of five (5) sediment samples analyzed for volatile, semivolatile scan and semivolatile Selected Ion Monitoring (SIM) compounds. Samples were analyzed by ALS Environmental (ALS) of Salt Lake City, UT according to the Contract Laboratory Program (CLP) Statement of Work (SOW) SOM02.3 through the Routine Analytical Services (RAS) program.

SUMMARY

Validation of data was performed with guidance from the organic National Functional Guidelines utilizing the Environmental Data Exchange and Evaluation System (EXES) and has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). Areas of concern with respect to data usability are listed below.

Sample C0AE5 is the trip blank associated with volatile samples in this SDG but was analyzed and reported in SDG C0AC0. The trip Blank was used in evaluation of the samples in the current SDG as noted in the Notes section.

MAJOR PROBLEM

The Relative Response Factor (RRF) for naphthalene was outside the control limit in the SIM continuing calibration standard associated with all samples. Positive result for naphthalene in sample C0AD2 has been qualified as estimated, "J". Quantitation limits for this compound in the remaining SIM samples have rejected and qualified "R".

MINOR PROBLEMS

Hexachlorocyclopentadiene failed precision criteria [Percent Difference (%D)] in the semivolatile continuing calibration associated with all samples. No positive results were reported for this compound. Quantitation limits for this compound in the semivolatile samples have been qualified "UJ".

Recoveries of Deuterated Monitoring Compound (DMC) 1,4-dioxane-d₈ were outside the lower control limit in all semivolatile samples. No positive results were reported for 1,4-dioxane, the compound associated with this DMC. Quantitation limits for this compound have been qualified "UJ".

NOTES

Compounds detected below Contract Required Quantitation Limits (CRQLs) have been qualified "J".

Laboratory blanks were free of contamination except for 1,2,3-trichlorobenzene <CRQL in volatile blank VBLKS1. No positive result was reported for this compound in the field samples and no data were qualified based on this result.

The trip blank, sample C0AE5, reported a positive result <CRQL for methylene chloride. Methylene chloride was not detected in the sediment samples. No data were qualified based on this contaminant.

Several compounds exceeded the calibration range in the initial analysis of SIM samples listed below. These samples were reanalyzed at dilutions listed to bring concentrations of the compounds within the calibration range. Results for these compounds in these samples are reported from the diluted analysis.

<u>Sample</u>	<u>DF</u>	<u>Compound</u>
C0AD1	3X	Fluoranthene, pyrene, chrysene, benzo(b)fluoranthene, benzo(a) pyrene
C0AD2	8X	Phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benzo(g,h,i)perylene
C0AD3	3X	Fluoranthene, pyrene
C0AD4	4X	Fluoranthene, pyrene, benzo(b)fluoranthene

Although samples contained concentrations greater than the upper calibration range, no carry over impacting samples in this SDG was indicated. No data are qualified based on this finding.

Results for the field duplicate pair, samples C0AD0/C0AD4, were comparable for volatile and semivolatile scan analyses. However the results were generally not comparable for semivolatile SIM analysis. No data are qualified based on this finding.

RRFs for naphthalene were outside the control limit in 2 out of 5 initial calibration standards in the SIM analysis. The average RRF as well as the percent relative standard deviation were within control limits. No data were qualified based on these outliers.

Carbazole failed precision criteria [Percent Relative Standard Deviation (%RSD)] in the semivolatile initial calibration. No positive result was reported for this compound. No data were qualified based on this outlier.

Semivolatile SIM DMCs fluoranthene-d₁₀ and 2-methylnaphthalene-d₁₀ were diluted out in sample C0AD2DL. Recoveries of both DMCs were within control limit in the undiluted analysis of this sample. No data were qualified based on these outliers.

Percent solids were reported for all sediment samples in all fractions. However, the laboratory reported to the Region that percent moisture containers for volatile samples were not received. Volatile results were calculated using the percent solids from the associated semivolatile samples. No data are qualified due to this finding.

The reference spectra provided by the laboratory for acetone and 2-butanone in sample C0AD2 showed additional ions not associated with these compounds. No data were qualified based on this observation.

Sample C0AD1 was requested for Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses on the Chain of Custody (COC) records. However, the laboratory noted in their case narrative that MS/MSD analyses were not required for this SDG. No data were qualified based on this finding.

The sample coolers containing all samples had interior temperatures ranging from 7.0°C to 8.0°C when received by the laboratory. The required temperature of 4°C ± 2°C has been exceeded by 1.0°C to 2.0°C. No data were qualified based on this slight elevated temperature outside criteria.

Tentatively Identified Compounds (TICs) are not reviewed by data validators. The validation qualifiers are applied by EXES electronic software based on laboratory qualifiers. By definition, all compounds identified as TICs should be treated as tentative identifications and should be considered estimated.

A subset of manual integrations noted in the laboratory case narrative were evaluated by the reviewer to be accurate and consistent. No action was taken by the reviewer based on manual integrations performed by the laboratory.

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- NJ The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
- C The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS).
- X The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed.

DCN: ESATR3-CY4-V397

Sample Summary Report

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD0	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SD-1	pH:	Sample Date: 10/25/2016	Sample Time: 14:30:00
% Moisture :		% Solids : 80.696	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Chloromethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Bromomethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Chloroethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Acetone	Target	12	U	ug/kg	12	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
2-Butanone	Target	12	U	ug/kg	12	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Chloroform	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Benzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	12	U	ug/kg	12	U	1.0	Yes	S4VEM
Toluene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
trans-1,3-Dichloropropene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
2-Hexanone	Target	12	U	ug/kg	12	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
o-Xylene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Styrene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Bromoform	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.9	U	ug/kg	5.9	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD0	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SD-1	pH:	Sample Date: 10/25/2016	Sample Time: 14:30:00
% Moisture :		% Solids : 80.696	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	82	UJ	ug/kg	82	U	1.0	Yes	S4VEM
Benzaldehyde	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Phenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2-Methylphenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Acetophenone	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
4-Methylphenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Caprolactam	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	410	UJ	ug/kg	410	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Atrazine	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Phenanthrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Carbazole	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Fluoranthene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Chrysene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	Yes	S4VEM
.gamma.-Sitosterol	TIC	140	JN	ug/kg	140	JN	1.0	Yes	NV
Total Alkanes	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-4-methyl-	TIC	67000	J	ug/kg	67000	J	1.0	Yes	NV
Unknown Methyl 2-bromodecanoate	TIC	84	J	ug/kg	84	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	810	JNB	ug/kg	810	JNB	1.0	Yes	NV
Unknown 1-(3-Trifluoromethylphenyl)piperazine, N-trimeth	TIC	90	J	ug/kg	90	J	1.0	Yes	NV
1-Pentene, 3,3-dimethyl-	TIC	97	JN	ug/kg	97	JN	1.0	Yes	NV
Unknown 2-(2-Methoxyethoxy)ethyl acetate	TIC	200	J	ug/kg	200	J	1.0	Yes	NV
Hexadecanamide	TIC	110	JNB	ug/kg	110	JNB	1.0	Yes	NV
Unknown (Z)-1,3-Butadien-1-ol	TIC	140	J	ug/kg	140	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-	TIC	530	JB	ug/kg	530	JB	1.0	Yes	NV
Unknown 3-Penten-2-ol	TIC	89	J	ug/kg	89	J	1.0	Yes	NV
Unknown 1-Naphthalenemethanamine, .alpha.-methyl-, (R)-	TIC	220	J	ug/kg	220	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD0	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SD-1	pH:	Sample Date: 10/25/2016	Sample Time: 14:30:00
% Moisture :		% Solids : 80.696	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	4.1	R	ug/kg	4.1	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	4.1	U	ug/kg	4.1	U	1.0	Yes	S4VEM
Acenaphthylene	Target	4.6		ug/kg	4.6		1.0	Yes	S4VEM
Acenaphthene	Target	4.1	U	ug/kg	4.1	U	1.0	Yes	S4VEM
Fluorene	Target	4.1	U	ug/kg	4.1	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	8.2	U	ug/kg	8.2	U	1.0	Yes	S4VEM
Phenanthrene	Target	20		ug/kg	20		1.0	Yes	S4VEM
Anthracene	Target	6.0		ug/kg	6.0		1.0	Yes	S4VEM
Fluoranthene	Target	57		ug/kg	57		1.0	Yes	S4VEM
Pyrene	Target	50		ug/kg	50		1.0	Yes	S4VEM
Benzo(a)anthracene	Target	29		ug/kg	29		1.0	Yes	S4VEM
Chrysene	Target	32		ug/kg	32		1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	47		ug/kg	47		1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	14		ug/kg	14		1.0	Yes	S4VEM
Benzo(a)pyrene	Target	32		ug/kg	32		1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	25		ug/kg	25		1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	5.4		ug/kg	5.4		1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	24		ug/kg	24		1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD1	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SD-2	pH:	Sample Date: 10/25/2016	Sample Time: 13:30:00
% Moisture :		% Solids : 76.889	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	86	UJ	ug/kg	86	U	1.0	Yes	S4VEM
Benzaldehyde	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Phenol	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Methylphenol	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Acetophenone	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
4-Methylphenol	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Caprolactam	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	430	UJ	ug/kg	430	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Atrazine	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Carbazole	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Fluoranthene	Target	110	J	ug/kg	110	J	1.0	Yes	S4VEM
Pyrene	Target	94	J	ug/kg	94	J	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	430	U	ug/kg	430	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	88	J	ug/kg	88	J	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	58	J	ug/kg	58	J	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Cholesterol	TIC	99	JN	ug/kg	99	JN	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	500	JB	ug/kg	500	JB	1.0	Yes	NV
Hexadecanamide	TIC	140	JNB	ug/kg	140	JNB	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	57000	J	ug/kg	57000	J	1.0	Yes	NV
Unknown Phosphine, acetyltrimethyl-	TIC	100	J	ug/kg	100	J	1.0	Yes	NV
Total Alkanes	TIC	190	J	ug/kg	190	J	1.0	Yes	NV
3-Penten-2-ol	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV
Unknown Tetradecanamide	TIC	2000	J	ug/kg	2000	J	1.0	Yes	NV
Unknown 1-Naphthalenemethanamine, .alpha.-methyl-, (R)-	TIC	130	J	ug/kg	130	J	1.0	Yes	NV
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofurazan	TIC	330	JN	ug/kg	330	JN	1.0	Yes	NV
.gamma.-Sitosterol	TIC	350	JN	ug/kg	350	JN	1.0	Yes	NV
Ethane, 1,1,2,2-tetrachloro-	TIC	170	JN	ug/kg	170	JN	1.0	Yes	NV
Stigmast-4-en-3-one	TIC	180	JN	ug/kg	180	JN	1.0	Yes	NV
Stigmasterol	TIC	100	JN	ug/kg	100	JN	1.0	Yes	NV
Unknown 2-(2-Methoxyethoxy)ethyl acetate	TIC	190	J	ug/kg	190	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV
Unknown 1-Pentene, 3,3-dimethyl-	TIC	280	J	ug/kg	280	J	1.0	Yes	NV
Unknown 1,2-Ethanediol	TIC	150	J	ug/kg	150	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD1	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SD-2	pH:	Sample Date: 10/25/2016	Sample Time: 13:30:00
% Moisture :		% Solids : 76.889	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	4.2	R	ug/kg	4.2	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	4.2	U	ug/kg	4.2	U	1.0	Yes	S4VEM
Acenaphthylene	Target	9.6		ug/kg	9.6		1.0	Yes	S4VEM
Acenaphthene	Target	4.2	U	ug/kg	4.2	U	1.0	Yes	S4VEM
Fluorene	Target	4.2	J	ug/kg	4.2	J	1.0	Yes	S4VEM
Pentachlorophenol	Target	8.6	U	ug/kg	8.6	U	1.0	Yes	S4VEM
Phenanthrene	Target	58		ug/kg	58		1.0	Yes	S4VEM
Anthracene	Target	14		ug/kg	14		1.0	Yes	S4VEM
Fluoranthene	Target	110		ug/kg	110	D	3.0	Yes	S4VEM
Pyrene	Target	90		ug/kg	90	D	3.0	Yes	S4VEM
Benzo(a)anthracene	Target	66		ug/kg	66		1.0	Yes	S4VEM
Chrysene	Target	57		ug/kg	57	D	3.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	76		ug/kg	76	D	3.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	31		ug/kg	31		1.0	Yes	S4VEM
Benzo(a)pyrene	Target	56		ug/kg	56	D	3.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	68		ug/kg	68		1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	13		ug/kg	13		1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	65		ug/kg	65		1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SD-2	pH:	Sample Date: 10/25/2016	Sample Time: 13:30:00
% Moisture :		% Solids : 76.889	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Chloromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Bromomethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Chloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Acetone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
2-Butanone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Chloroform	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Benzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VEM
Toluene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
2-Hexanone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
o-Xylene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Styrene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Bromoform	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD2	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SD-3	pH:	Sample Date: 10/25/2016	Sample Time: 12:10:00
% Moisture :		% Solids : 64.571	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	4.5	J+	ug/kg	4.5	J	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	5.0	J	ug/kg	5.0	J	1.0	Yes	S4VEM
Acenaphthylene	Target	18		ug/kg	18		1.0	Yes	S4VEM
Acenaphthene	Target	6.2		ug/kg	6.2		1.0	Yes	S4VEM
Fluorene	Target	13		ug/kg	13		1.0	Yes	S4VEM
Pentachlorophenol	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Phenanthrene	Target	110		ug/kg	110	D	8.0	Yes	S4VEM
Anthracene	Target	47		ug/kg	47		1.0	Yes	S4VEM
Fluoranthene	Target	300		ug/kg	300	D	8.0	Yes	S4VEM
Pyrene	Target	220		ug/kg	220	D	8.0	Yes	S4VEM
Benzo(a)anthracene	Target	140		ug/kg	140	D	8.0	Yes	S4VEM
Chrysene	Target	140		ug/kg	140	D	8.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	170		ug/kg	170	D	8.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	66		ug/kg	66		1.0	Yes	S4VEM
Benzo(a)pyrene	Target	130		ug/kg	130	D	8.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	110		ug/kg	110	D	8.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	29		ug/kg	29		1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	100		ug/kg	100	D	8.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD2	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SD-3	pH:	Sample Date: 10/25/2016	Sample Time: 12:10:00
% Moisture :		% Solids : 64.571	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	100	UJ	ug/kg	100	U	1.0	Yes	S4VEM
Benzaldehyde	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Phenol	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2-Methylphenol	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Acetophenone	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
4-Methylphenol	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Hexachloroethane	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Nitrobenzene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Isophorone	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Naphthalene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Caprolactam	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	510	UJ	ug/kg	510	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Acenaphthene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Dibenzofuran	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Diethylphthalate	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Fluorene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Atrazine	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Phenanthrene	Target	100	J	ug/kg	100	J	1.0	Yes	S4VEM
Anthracene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Carbazole	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Fluoranthene	Target	260	J	ug/kg	260	J	1.0	Yes	S4VEM
Pyrene	Target	190	J	ug/kg	190	J	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	140	J	ug/kg	140	J	1.0	Yes	S4VEM
Chrysene	Target	140	J	ug/kg	140	J	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	860		ug/kg	860		1.0	Yes	S4VEM
Di-n-octylphthalate	Target	510	U	ug/kg	510	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	190	J	ug/kg	190	J	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	130	J	ug/kg	130	J	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	82	J	ug/kg	82	J	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	260	U	ug/kg	260	U	1.0	Yes	S4VEM
Unknown 2-Pantanone, 4-hydroxy-	TIC	280	JB	ug/kg	280	JB	1.0	Yes	NV
1-Octadecene	TIC	190	JN	ug/kg	190	JN	1.0	Yes	NV
Unknown 2-Hexanone, 4-hydroxy-5-methyl-	TIC	240	JB	ug/kg	240	JB	1.0	Yes	NV
Friedelan-3-one	TIC	620	JN	ug/kg	620	JN	1.0	Yes	NV
(Z)-4-Methyl-2-hexene	TIC	160	JN	ug/kg	160	JN	1.0	Yes	NV
n-Hexadecanoic acid	TIC	110	JN	ug/kg	110	JN	1.0	Yes	NV
Stigmasterol	TIC	280	JN	ug/kg	280	JN	1.0	Yes	NV
.gamma.-Sitosterol	TIC	1400	JN	ug/kg	1400	JN	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-4-methyl-	TIC	73000	J	ug/kg	73000	J	1.0	Yes	NV
Unknown .alpha.-Amyrin	TIC	450	J	ug/kg	450	J	1.0	Yes	NV
Unknown Spiropentane	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
.beta.-Amyrin	TIC	330	JN	ug/kg	330	JN	1.0	Yes	NV
Cholestanol	TIC	150	JN	ug/kg	150	JN	1.0	Yes	NV
4,4,6a,6b,8a,11,12,14b-Octamethyl-1,4,4a,5,6,6a,	TIC	390	JN	ug/kg	390	JN	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	1700	JNB	ug/kg	1700	JNB	1.0	Yes	NV
4,4,6a,6b,8a,11,11,14b-Octamethyl-1,4,4a,5,6,6a,	TIC	320	JN	ug/kg	320	JN	1.0	Yes	NV
Unknown 2(1H)-Naphthalenone, octahydro-1,4a-dimethyl-, (	TIC	160	J	ug/kg	160	J	1.0	Yes	NV
Unknown 3-Cyclohexylpropionamide	TIC	100	J	ug/kg	100	J	1.0	Yes	NV
Unknown 3-Buten-2-one, 3-methyl-	TIC	320	J	ug/kg	320	J	1.0	Yes	NV
Unknown 3-Penten-2-ol	TIC	200	J	ug/kg	200	J	1.0	Yes	NV
Total Alkanes	TIC	680	J	ug/kg	680	J	1.0	Yes	NV
Unknown 1,2-Ethanediol	TIC	130	J	ug/kg	130	J	1.0	Yes	NV
Hexadecanamide	TIC	150	JNB	ug/kg	150	JNB	1.0	Yes	NV
Stigmast-4-en-3-one	TIC	400	JN	ug/kg	400	JN	1.0	Yes	NV
26-Nor-5-cholest-3-beta.-ol-25-one	TIC	390	JN	ug/kg	390	JN	1.0	Yes	NV
Unknown Methacrylamide	TIC	100	J	ug/kg	100	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD2	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SD-3	pH:	Sample Date: 10/25/2016	Sample Time: 12:10:00
% Moisture :		% Solids : 64.571	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Chloromethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Vinyl chloride	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Bromomethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Chloroethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Acetone	Target	25		ug/kg	25		1.0	Yes	S4VEM
Carbon disulfide	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Methyl acetate	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Methylene chloride	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
2-Butanone	Target	12	J	ug/kg	12	J	1.0	Yes	S4VEM
Bromochloromethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Chloroform	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Cyclohexane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Benzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Trichloroethene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	16	U	ug/kg	16	U	1.0	Yes	S4VEM
Toluene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
2-Hexanone	Target	16	U	ug/kg	16	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Chlorobenzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Ethylbenzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
o-Xylene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
m,p-Xylene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Styrene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Bromoform	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	7.8	U	ug/kg	7.8	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD3	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SD-4	pH:	Sample Date: 10/25/2016	Sample Time: 11:10:00
% Moisture :		% Solids : 40.093	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	170	UJ	ug/kg	170	U	1.0	Yes	S4VEM
Benzaldehyde	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Phenol	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2-Methylphenol	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Acetophenone	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
4-Methylphenol	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Hexachloroethane	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Nitrobenzene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Isophorone	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Naphthalene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Caprolactam	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	830	UJ	ug/kg	830	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Acenaphthene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Dibenzofuran	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Diethylphthalate	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Fluorene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Atrazine	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Phenanthrene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Anthracene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Carbazole	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Fluoranthene	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Pyrene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Chrysene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	830	U	ug/kg	830	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	410	U	ug/kg	410	U	1.0	Yes	S4VEM
Unknown Ergosta-5,22-dien-3-ol, (3.bet.,22E)-	TIC	190	J	ug/kg	190	J	1.0	Yes	NV
.gamma.-Sitosterol	TIC	2500	JN	ug/kg	2500	JN	1.0	Yes	NV
Unknown 2(1H)-Naphthalenone, octahydro-4a,7,7-trimethyl-	TIC	950	J	ug/kg	950	J	1.0	Yes	NV
Unknown 3-Hexene, 3-methyl-, (Z)-	TIC	430	J	ug/kg	430	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-4-methyl-	TIC	99000	J	ug/kg	99000	J	1.0	Yes	NV
Unknown 5-Isopropylidene-6-methyldeca-3,6,9-trien-2-one	TIC	510	J	ug/kg	510	J	1.0	Yes	NV
Stigmasterol	TIC	780	JN	ug/kg	780	JN	1.0	Yes	NV
Total Alkanes	TIC	600	J	ug/kg	600	J	1.0	Yes	NV
26-Nor-5-cholest-3.bet.-ol-25-one	TIC	790	JN	ug/kg	790	JN	1.0	Yes	NV
Unknown 2-(2-Methoxyethoxy)ethyl acetate	TIC	340	J	ug/kg	340	J	1.0	Yes	NV
Unknown 6,10-Dimethyl-3-(1-methylethylidene)-1-cyclodece	TIC	550	J	ug/kg	550	J	1.0	Yes	NV
Unknown 3-Penten-2-ol	TIC	290	J	ug/kg	290	J	1.0	Yes	NV
n-Hexadecanoic acid	TIC	370	JN	ug/kg	370	JN	1.0	Yes	NV
Stigmast-4-en-3-one	TIC	920	JN	ug/kg	920	JN	1.0	Yes	NV
Friedelan-3-one	TIC	1100	JN	ug/kg	1100	JN	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	260	JN	ug/kg	260	JN	1.0	Yes	NV
Unknown Stigmastanol	TIC	270	J	ug/kg	270	J	1.0	Yes	NV
Unknown 2-Chloro-5-hydroxy-2,4,6-cycloheptatrien-1-one	TIC	170	J	ug/kg	170	J	1.0	Yes	NV
Unknown 2-Pantanone, 4-hydroxy-	TIC	480	JB	ug/kg	480	JB	1.0	Yes	NV
Unknown 6S-2,3,8,8-Tetramethyltricyclo[5.2.2.0(1,6)]undec	TIC	800	J	ug/kg	800	J	1.0	Yes	NV
Campesterol	TIC	570	JN	ug/kg	570	JN	1.0	Yes	NV
Unknown 7-Nonenamide	TIC	3800	J	ug/kg	3800	J	1.0	Yes	NV
Palmitoleic acid	TIC	210	JN	ug/kg	210	JN	1.0	Yes	NV
Tetradecanamide	TIC	270	JN	ug/kg	270	JN	1.0	Yes	NV
Ethane, 1,1,2,2-tetrachloro-	TIC	210	JN	ug/kg	210	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD3	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SD-4	pH:	Sample Date: 10/25/2016	Sample Time: 11:10:00
% Moisture :		% Solids : 40.093	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	8.2	R	ug/kg	8.2	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	8.2	U	ug/kg	8.2	U	1.0	Yes	S4VEM
Acenaphthylene	Target	12		ug/kg	12		1.0	Yes	S4VEM
Acenaphthene	Target	8.2	U	ug/kg	8.2	U	1.0	Yes	S4VEM
Fluorene	Target	5.2	J	ug/kg	5.2	J	1.0	Yes	S4VEM
Pentachlorophenol	Target	17	U	ug/kg	17	U	1.0	Yes	S4VEM
Phenanthrene	Target	65		ug/kg	65		1.0	Yes	S4VEM
Anthracene	Target	20		ug/kg	20		1.0	Yes	S4VEM
Fluoranthene	Target	130		ug/kg	130	D	3.0	Yes	S4VEM
Pyrene	Target	110		ug/kg	110	D	3.0	Yes	S4VEM
Benzo(a)anthracene	Target	89		ug/kg	89		1.0	Yes	S4VEM
Chrysene	Target	93		ug/kg	93		1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	120		ug/kg	120		1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	40		ug/kg	40		1.0	Yes	S4VEM
Benzo(a)pyrene	Target	90		ug/kg	90		1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	74		ug/kg	74		1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	16		ug/kg	16		1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	72		ug/kg	72		1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD3	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SD-4	pH:	Sample Date: 10/25/2016	Sample Time: 11:10:00
% Moisture :		% Solids : 40.093	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Chloromethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Vinyl chloride	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Bromomethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Chloroethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Acetone	Target	30	U	ug/kg	30	U	1.0	Yes	S4VEM
Carbon disulfide	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Methyl acetate	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Methylene chloride	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
2-Butanone	Target	30	U	ug/kg	30	U	1.0	Yes	S4VEM
Bromochloromethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Chloroform	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Cyclohexane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Benzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Trichloroethene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	30	U	ug/kg	30	U	1.0	Yes	S4VEM
Toluene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
2-Hexanone	Target	30	U	ug/kg	30	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Chlorobenzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Ethylbenzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
o-Xylene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
m,p-Xylene	Target	1.2	J	ug/kg	1.2	J	1.0	Yes	S4VEM
Styrene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Bromoform	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	15	U	ug/kg	15	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD4	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location: SD-5	pH:	Sample Date: 10/25/2016	Sample Time: 14:30:00
% Moisture :		% Solids : 78.796	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	4.2	R	ug/kg	4.2	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	4.2	U	ug/kg	4.2	U	1.0	Yes	S4VEM
Acenaphthylene	Target	11		ug/kg	11		1.0	Yes	S4VEM
Acenaphthene	Target	4.8		ug/kg	4.8		1.0	Yes	S4VEM
Fluorene	Target	4.1	J	ug/kg	4.1	J	1.0	Yes	S4VEM
Pentachlorophenol	Target	8.5	U	ug/kg	8.5	U	1.0	Yes	S4VEM
Phenanthrene	Target	50		ug/kg	50		1.0	Yes	S4VEM
Anthracene	Target	16		ug/kg	16		1.0	Yes	S4VEM
Fluoranthene	Target	120		ug/kg	120	D	4.0	Yes	S4VEM
Pyrene	Target	95		ug/kg	95	D	4.0	Yes	S4VEM
Benzo(a)anthracene	Target	62		ug/kg	62		1.0	Yes	S4VEM
Chrysene	Target	58		ug/kg	58		1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	71		ug/kg	71	D	4.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	28		ug/kg	28		1.0	Yes	S4VEM
Benzo(a)pyrene	Target	60		ug/kg	60		1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	48		ug/kg	48		1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	11		ug/kg	11		1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	45		ug/kg	45		1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD4	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: SD-5	pH:	Sample Date: 10/25/2016	Sample Time: 14:30:00
% Moisture :		% Solids : 78.796	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	84	UJ	ug/kg	84	U	1.0	Yes	S4VEM
Benzaldehyde	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Phenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Methylphenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Acetophenone	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
4-Methylphenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Caprolactam	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	420	UJ	ug/kg	420	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Atrazine	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Carbazole	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Fluoranthene	Target	90	J	ug/kg	90	J	1.0	Yes	S4VEM
Pyrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	420	U	ug/kg	420	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	Yes	S4VEM
.beta.-Sitosterol	TIC	170	JN	ug/kg	170	JN	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-4-methyl-	TIC	58000	J	ug/kg	58000	J	1.0	Yes	NV
Unknown N-(4-Methyl-3-nitrophenyl)bicyclo[4.1.0]heptane-	TIC	770	J	ug/kg	770	J	1.0	Yes	NV
Unknown Cyclohexanecarboxamide	TIC	89	J	ug/kg	89	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-	TIC	230	JB	ug/kg	230	JB	1.0	Yes	NV
Unknown 4-Fluoro-4-methylpentane-2,3-dione	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
(Z)-4-Methyl-2-hexene	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV
Unknown 2,2,6-Trimethyl-4H-1,3-dioxin-4-one	TIC	210	J	ug/kg	210	J	1.0	Yes	NV
3-Penten-2-ol	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV
Unknown 1,4-Hexadiene	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Unknown 4-Isopropyl-5-methylhexa-2,4-dien-1-ol	TIC	88	J	ug/kg	88	J	1.0	Yes	NV
Tetradecanamide	TIC	97	JN	ug/kg	97	JN	1.0	Yes	NV
Unknown 2-Heptanol, acetate	TIC	190	J	ug/kg	190	J	1.0	Yes	NV
Unknown 1-Naphthalenemethanamine, .alpha.-methyl-, (R)-	TIC	140	J	ug/kg	140	J	1.0	Yes	NV
Total Alkanes	TIC	95	J	ug/kg	95	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	740	JNB	ug/kg	740	JNB	1.0	Yes	NV
Unknown 1,2-Ethanediol	TIC	110	J	ug/kg	110	J	1.0	Yes	NV
Unknown 2(1H)-Naphthalenone, 5-[2-(3-furanyl)ethyl]octah	TIC	120	J	ug/kg	120	J	1.0	Yes	NV
Ethane, 1,1,2,2-tetrachloro-	TIC	120	JN	ug/kg	120	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: C0AD4	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location: SD-5	pH:	Sample Date: 10/25/2016	Sample Time: 14:30:00
% Moisture :		% Solids : 78.796	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Chloromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Bromomethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Chloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Acetone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
2-Butanone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Chloroform	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Benzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VEM
Toluene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
2-Hexanone	Target	11	U	ug/kg	11	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
o-Xylene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Styrene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Bromoform	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.4	U	ug/kg	5.4	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: SBLK91	Method: Semivolatiles by SIM	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Naphthalene	Target	3.3	R	ug/kg	3.3	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Acenaphthylene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Acenaphthene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Fluorene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	6.7	U	ug/kg	6.7	U	1.0	Yes	S4VEM
Phenanthrene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Anthracene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Fluoranthene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Pyrene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Chrysene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	3.3	U	ug/kg	3.3	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: SBLK91	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	67	UJ	ug/kg	67	U	1.0	Yes	S4VEM
Benzaldehyde	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Phenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2-Methylphenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Acetophenone	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
4-Methylphenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Hexachloroethane	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Nitrobenzene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Isophorone	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Naphthalene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Caprolactam	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Acenaphthene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Dibenzofuran	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Diethylphthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Fluorene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Atrazine	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Phenanthrene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Anthracene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Carbazole	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Fluoranthene	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Pyrene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Chrysene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	330	U	ug/kg	330	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	170	U	ug/kg	170	U	1.0	Yes	S4VEM
Unknown 6-Isopropylquinoline	TIC	70	J	ug/kg	70	J	1.0	Yes	NV
Unknown 2-Pentanone, 4-hydroxy-	TIC	400	J	ug/kg	400	J	1.0	Yes	NV
Unknown 2-Hexanone, 4-hydroxy-5-methyl-	TIC	160	J	ug/kg	160	J	1.0	Yes	NV
Total Alkanes	TIC	100	J	ug/kg	100	J	1.0	Yes	NV
9-Octadecenamide, (Z)-	TIC	520	JN	ug/kg	520	JN	1.0	Yes	NV
Hexadecanamide	TIC	100	JN	ug/kg	100	JN	1.0	Yes	NV
Unknown Guanidine	TIC	48000	J	ug/kg	48000	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: VBLKS1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.66	J	ug/kg	0.66	J	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AD0	Lab Code: ALS
Sample Number: VHBLKS1	Method: Volatile Organics	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/kg	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/kg	5.0	U	1.0	Yes	S4VEM

APPENDIX K

INORGANIC DATA VALIDATION REPORT – SEDIMENT SAMPLES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: December 20, 2016

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald 
Region III ESAT PO (3EA22)

TO: Justin Bleiler
RPM

Attached is the inorganic data validation report for the St. Albans Trailer Park site for Case/DAS#46440; SDG#MC0AD0 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: Lafe Kunkel (Core-Env)
Rebecca Patton (Core-Env)

TO: #0002 TDF: #1116061

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ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

Date: December 12, 2016

To: Brandon McDonald
ESAT Region 3 Project Officer

From: Mahboobeh Mecanic
Data Review Chemist

Dean Gouveia
Oversight Chemist

Subject: Inorganic Data Validation (S4VEM)
Site: St. Albans Trailer Park
Case: 46440, SDG: MC0AD0

OVERVIEW

Case 46440, Sample Delivery Group (SDG) MC0AD0, consisted of five (5) sediment samples including one (1) field duplicate pair analyzed for total metals by ICP MS. All samples were analyzed by Chemtex (CHX) according to Contract Laboratory Program (CLP) Statement of Work (SOW) ISM02.3 through the Routine Analytical Services (RAS) program.

SUMMARY

Validation of data was performed with guidance from the Inorganic National Functional Guidelines utilizing the Environmental Data Exchange and Evaluation System (EXES) and has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). No areas of concern with respect to data usability were noted during the validation.

NOTES

Analytes detected below Contract Required Quantitation Limit (CRQL) have been qualified “J” unless raised to the CRQL and qualified “U” due to blank contamination.

Continuing Calibration Blanks (CCB) reported positive results greater than Method Detection Limit (>MDL) but <CRQL for antimony (Sb), beryllium (Be) and cadmium (Cd). Positive results for these analytes <CRQL associated with these CCBs have been raised to the CRQL and qualified “U” due to blank contamination.

Results for the field duplicate pairs, samples MC0AD0/MC0AD4, were comparable except for Sb.

The percent relative intensities (%RIs) of internal standard scandium (Sc-45) were outside the upper control limit in the initial analysis of samples MC0AD0 and MC0AD4. These samples were reanalyzed at a 2X dilution and Sc-45 %RIs were within control limits. Results from the 2X dilution of these samples have been reported by the laboratory. CRQLs are elevated in these samples due to the dilution.

Manganese exceeded the calibration range in the initial analysis of samples listed below. These samples were reanalyzed at dilution factors (DF) listed to bring the concentration of the analyte within the calibration range. Results for this analyte in these samples have been reported from the diluted analysis.

<u>Sample</u>	<u>DF</u>
MC0AD0, MC0AD2, MC0AD4	10X
MC0AD1	5X
MC0AD3	2X

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- B The result is presumed a blank contaminant. This qualifier is used only for drinking water samples.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Summary Report

Case No:	46440	Contract:	EPW15007	SDG No:	MC0AD0	Lab Code:	CHX
Sample Number:	LCSD98	Method:	Metals by ICP-MS	Matrix:	Soil	MA Number:	
Sample Location:	pH:			Sample Date:	Sample Time:		
% Moisture :				% Solids :	100		

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	2.1		mg/kg	2.1		1	Yes	S4VEM
Arsenic	Target	1.2		mg/kg	1.2		1	Yes	S4VEM
Barium	Target	10.0		mg/kg	10.0		1	Yes	S4VEM
Beryllium	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Cadmium	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Chromium	Target	1.9		mg/kg	1.9		1	Yes	S4VEM
Cobalt	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Copper	Target	2.1		mg/kg	2.1		1	Yes	S4VEM
Lead	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Manganese	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Nickel	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Selenium	Target	5.9		mg/kg	5.9		1	Yes	S4VEM
Silver	Target	1.0		mg/kg	1.0		1	Yes	S4VEM
Thallium	Target	1.1		mg/kg	1.1		1	Yes	S4VEM
Vanadium	Target	5.1		mg/kg	5.1		1	Yes	S4VEM
Zinc	Target	2.5		mg/kg	2.5		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: MC0AD0	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SD-1	pH:	Sample Date: 10/25/2016	Sample Time: 14:30:00
% Moisture :		% Solids : 80.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	2.0	U	mg/kg	2.0	UD	2	Yes	S4VEM
Arsenic	Target	3.8		mg/kg	3.8	D	2	Yes	S4VEM
Barium	Target	114		mg/kg	114	D	2	Yes	S4VEM
Beryllium	Target	0.99	U	mg/kg	0.98	JD	2	Yes	S4VEM
Cadmium	Target	0.99	U	mg/kg	0.99	UD	2	Yes	S4VEM
Chromium	Target	15.4		mg/kg	15.4	D	2	Yes	S4VEM
Cobalt	Target	15.6		mg/kg	15.6	D	2	Yes	S4VEM
Copper	Target	22.6		mg/kg	22.6	D	2	Yes	S4VEM
Lead	Target	23.4		mg/kg	23.4	D	2	Yes	S4VEM
Manganese	Target	889		mg/kg	889	D	10	Yes	S4VEM
Nickel	Target	18.7		mg/kg	18.7	D	2	Yes	S4VEM
Selenium	Target	4.9	U	mg/kg	4.9	UD	2	Yes	S4VEM
Silver	Target	0.99	U	mg/kg	0.99	UD	2	Yes	S4VEM
Thallium	Target	0.99	U	mg/kg	0.99	UD	2	Yes	S4VEM
Vanadium	Target	20.6		mg/kg	20.6	D	2	Yes	S4VEM
Zinc	Target	81.5		mg/kg	81.5	D	2	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: MC0AD1	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SD-2	pH:	Sample Date: 10/25/2016	Sample Time: 13:30:00
% Moisture :		% Solids : 78.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.2	U	mg/kg	0.18	J	1	Yes	S4VEM
Arsenic	Target	4.6		mg/kg	4.6		1	Yes	S4VEM
Barium	Target	116		mg/kg	116		1	Yes	S4VEM
Beryllium	Target	0.82		mg/kg	0.82		1	Yes	S4VEM
Cadmium	Target	0.25	J	mg/kg	0.25	J	1	Yes	S4VEM
Chromium	Target	13.6		mg/kg	13.6		1	Yes	S4VEM
Cobalt	Target	12.7		mg/kg	12.7		1	Yes	S4VEM
Copper	Target	19.4		mg/kg	19.4		1	Yes	S4VEM
Lead	Target	22.0		mg/kg	22.0		1	Yes	S4VEM
Manganese	Target	744		mg/kg	744	D	5	Yes	S4VEM
Nickel	Target	16.9		mg/kg	16.9		1	Yes	S4VEM
Selenium	Target	3.0	U	mg/kg	3.0	U	1	Yes	S4VEM
Silver	Target	0.60	U	mg/kg	0.60	U	1	Yes	S4VEM
Thallium	Target	0.60	U	mg/kg	0.60	U	1	Yes	S4VEM
Vanadium	Target	17.8		mg/kg	17.8		1	Yes	S4VEM
Zinc	Target	97.4		mg/kg	97.4		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: MC0AD1D	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 10/25/2016	Sample Time: 13:30:00
% Moisture :		% Solids : 78.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.2	U	mg/kg	1.2	U	1	Yes	S4VEM
Arsenic	Target	4.5		mg/kg	4.5		1	Yes	S4VEM
Barium	Target	115		mg/kg	115		1	Yes	S4VEM
Beryllium	Target	0.82		mg/kg	0.82		1	Yes	S4VEM
Cadmium	Target	0.23	J	mg/kg	0.23	J	1	Yes	S4VEM
Chromium	Target	13.3		mg/kg	13.3		1	Yes	S4VEM
Cobalt	Target	12.8		mg/kg	12.8		1	Yes	S4VEM
Copper	Target	19.4		mg/kg	19.4		1	Yes	S4VEM
Lead	Target	21.7		mg/kg	21.7		1	Yes	S4VEM
Manganese	Target	743		mg/kg	743	D	5	Yes	S4VEM
Nickel	Target	16.9		mg/kg	16.9		1	Yes	S4VEM
Selenium	Target	3.0	U	mg/kg	3.0	U	1	Yes	S4VEM
Silver	Target	0.60	U	mg/kg	0.60	U	1	Yes	S4VEM
Thallium	Target	0.60	U	mg/kg	0.60	U	1	Yes	S4VEM
Vanadium	Target	17.6		mg/kg	17.6		1	Yes	S4VEM
Zinc	Target	97.3		mg/kg	97.3		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: MC0AD1L	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 78.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	6.0	U	mg/kg	6.0	U	5	Yes	S4VEM
Arsenic	Target	4.4		mg/kg	4.4		5	Yes	S4VEM
Barium	Target	120		mg/kg	120		5	Yes	S4VEM
Beryllium	Target	0.86	J	mg/kg	0.86	J	5	Yes	S4VEM
Cadmium	Target	3.0	U	mg/kg	3.0	U	5	Yes	S4VEM
Chromium	Target	13.1		mg/kg	13.1		5	Yes	S4VEM
Cobalt	Target	13.0		mg/kg	13.0		5	Yes	S4VEM
Copper	Target	19.5		mg/kg	19.5		5	Yes	S4VEM
Lead	Target	21.7		mg/kg	21.7		5	Yes	S4VEM
Manganese	Target	718		mg/kg	718	D	25	Yes	S4VEM
Nickel	Target	17.3		mg/kg	17.3		5	Yes	S4VEM
Selenium	Target	15.1	U	mg/kg	15.1	U	5	Yes	S4VEM
Silver	Target	3.0	U	mg/kg	3.0	U	5	Yes	S4VEM
Thallium	Target	3.0	U	mg/kg	3.0	U	5	Yes	S4VEM
Vanadium	Target	17.3		mg/kg	17.3		5	Yes	S4VEM
Zinc	Target	100		mg/kg	100		5	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: MC0AD1S	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 10/25/2016	Sample Time: 13:30:00
% Moisture :		% Solids : 78.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Spike	12.1		mg/kg	12.1		1	Yes	S4VEM
Arsenic	Spike	9.5		mg/kg	9.5		1	Yes	S4VEM
Barium	Spike	344		mg/kg	344		1	Yes	S4VEM
Beryllium	Spike	6.7		mg/kg	6.7		1	Yes	S4VEM
Cadmium	Spike	7.1		mg/kg	7.1		1	Yes	S4VEM
Chromium	Spike	36.4		mg/kg	36.4		1	Yes	S4VEM
Cobalt	Spike	76.9		mg/kg	76.9		1	Yes	S4VEM
Copper	Spike	50.6		mg/kg	50.6		1	Yes	S4VEM
Lead	Spike	24.4		mg/kg	24.4		1	Yes	S4VEM
Manganese	Spike	791		mg/kg	791	D	5	Yes	S4VEM
Nickel	Spike	78.3		mg/kg	78.3		1	Yes	S4VEM
Selenium	Spike	14.5		mg/kg	14.5		1	Yes	S4VEM
Silver	Spike	6.4		mg/kg	6.4		1	Yes	S4VEM
Thallium	Spike	6.0		mg/kg	6.0		1	Yes	S4VEM
Vanadium	Spike	79.5		mg/kg	79.5		1	Yes	S4VEM
Zinc	Spike	165		mg/kg	165		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: MC0AD2	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SD-3	pH:	Sample Date: 10/25/2016	Sample Time: 12:10:00
% Moisture :		% Solids : 70.2	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.3	U	mg/kg	1.3	U	1	Yes	S4VEM
Arsenic	Target	4.8		mg/kg	4.8		1	Yes	S4VEM
Barium	Target	115		mg/kg	115		1	Yes	S4VEM
Beryllium	Target	0.87		mg/kg	0.87		1	Yes	S4VEM
Cadmium	Target	0.30	J	mg/kg	0.30	J	1	Yes	S4VEM
Chromium	Target	14.4		mg/kg	14.4		1	Yes	S4VEM
Cobalt	Target	13.1		mg/kg	13.1		1	Yes	S4VEM
Copper	Target	22.6		mg/kg	22.6		1	Yes	S4VEM
Lead	Target	25.5		mg/kg	25.5		1	Yes	S4VEM
Manganese	Target	716		mg/kg	716	D	10	Yes	S4VEM
Nickel	Target	17.6		mg/kg	17.6		1	Yes	S4VEM
Selenium	Target	3.3	U	mg/kg	3.3	U	1	Yes	S4VEM
Silver	Target	0.11	J	mg/kg	0.11	J	1	Yes	S4VEM
Thallium	Target	0.67	U	mg/kg	0.67	U	1	Yes	S4VEM
Vanadium	Target	18.9		mg/kg	18.9		1	Yes	S4VEM
Zinc	Target	107		mg/kg	107		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: MC0AD3	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SD-4	pH:	Sample Date: 10/25/2016	Sample Time: 11:10:00
% Moisture :		% Solids : 59.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.4	U	mg/kg	0.21	J	1	Yes	S4VEM
Arsenic	Target	2.9		mg/kg	2.9		1	Yes	S4VEM
Barium	Target	101		mg/kg	101		1	Yes	S4VEM
Beryllium	Target	0.73		mg/kg	0.73		1	Yes	S4VEM
Cadmium	Target	0.34	J	mg/kg	0.34	J	1	Yes	S4VEM
Chromium	Target	11.3		mg/kg	11.3		1	Yes	S4VEM
Cobalt	Target	11.4		mg/kg	11.4		1	Yes	S4VEM
Copper	Target	20.8		mg/kg	20.8		1	Yes	S4VEM
Lead	Target	27.2		mg/kg	27.2		1	Yes	S4VEM
Manganese	Target	406		mg/kg	406	D	2	Yes	S4VEM
Nickel	Target	16.4		mg/kg	16.4		1	Yes	S4VEM
Selenium	Target	3.4	U	mg/kg	3.4	U	1	Yes	S4VEM
Silver	Target	0.12	J	mg/kg	0.12	J	1	Yes	S4VEM
Thallium	Target	0.68	U	mg/kg	0.68	U	1	Yes	S4VEM
Vanadium	Target	15.8		mg/kg	15.8		1	Yes	S4VEM
Zinc	Target	112		mg/kg	112		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: MC0AD4	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location: SD-5	pH:	Sample Date: 10/25/2016	Sample Time: 14:30:00
% Moisture :		% Solids : 80.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	3.5		mg/kg	3.5	D	2	Yes	S4VEM
Arsenic	Target	5.4		mg/kg	5.4	D	2	Yes	S4VEM
Barium	Target	131		mg/kg	131	D	2	Yes	S4VEM
Beryllium	Target	0.98		mg/kg	0.98	D	2	Yes	S4VEM
Cadmium	Target	0.97	U	mg/kg	0.26	JD	2	Yes	S4VEM
Chromium	Target	17.6		mg/kg	17.6	D	2	Yes	S4VEM
Cobalt	Target	13.4		mg/kg	13.4	D	2	Yes	S4VEM
Copper	Target	34.8		mg/kg	34.8	D	2	Yes	S4VEM
Lead	Target	33.6		mg/kg	33.6	D	2	Yes	S4VEM
Manganese	Target	653		mg/kg	653	D	10	Yes	S4VEM
Nickel	Target	19.4		mg/kg	19.4	D	2	Yes	S4VEM
Selenium	Target	4.8	U	mg/kg	4.8	UD	2	Yes	S4VEM
Silver	Target	0.97	U	mg/kg	0.97	UD	2	Yes	S4VEM
Thallium	Target	0.97	U	mg/kg	0.97	UD	2	Yes	S4VEM
Vanadium	Target	20.7		mg/kg	20.7	D	2	Yes	S4VEM
Zinc	Target	129		mg/kg	129	D	2	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AD0	Lab Code: CHX
Sample Number: PBSD98	Method: Metals by ICP-MS	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids : 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM
Arsenic	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Barium	Target	5.0	U	mg/kg	5.0	U	1	Yes	S4VEM
Beryllium	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Cadmium	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Chromium	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM
Cobalt	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Copper	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM
Lead	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Manganese	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Nickel	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Selenium	Target	2.5	U	mg/kg	2.5	U	1	Yes	S4VEM
Silver	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Thallium	Target	0.50	U	mg/kg	0.50	U	1	Yes	S4VEM
Vanadium	Target	2.5	U	mg/kg	2.5	U	1	Yes	S4VEM
Zinc	Target	1.0	U	mg/kg	1.0	U	1	Yes	S4VEM

APPENDIX L

ORGANIC DATA VALIDATION REPORT – QUALITY CONTROL SAMPLES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: December 16, 2016

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald
Region III ESAT PO (3EA22)

TO: Justin Bleiler
RPM

Attached is the organic data validation report for the St. Albans Trailer Park site for Case/DAS#46440; SDG#C0AE0 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: Lafe Kunkel

Rebecca Patton

TO: #0002 TDF: #1116049

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ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

DATE: December 7, 2016

TO: Brandon McDonald
ESAT Region 3 Project Officer

FROM: Mahboobeh Mecanic
Data Review Chemist

Dean Gouveia
Oversight Chemist

SUBJECT: Organic Data Validation (Level S4VEM)
Site: St. Albans Trailer Park
Case: 46440, SDG: C0AE0

OVERVIEW

Case 46440, Sample Delivery Group (SDG) C0AE0, consisted of three (3) trip blanks analyzed for volatile compounds and one (1) rinsate blank analyzed for volatile, semivolatile and semivolatile SIM (Selected Ion Monitoring) compounds. Samples were analyzed by ALS Environmental (ALS) according to the Contract Laboratory Program (CLP) Statement of Work (SOW) SOM02.3 and modification number 2520.2 through the Routine Analytical Services (RAS) program. Modification 2520.2 requested lower detection limits for selected semivolatile compounds.

SUMMARY

Validation of data was performed with guidance from the Organic National Functional Guidelines utilizing the Environmental Data Exchange and Evaluation System (EXES) and has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). Areas of concern with respect to data usability are listed below.

MAJOR PROBLEMS

Laboratory Control Sample (LCS) reported zero percent (0%) recovery for 2,4-dimethylphenol, 2,6-dinitrotoluene, 2-chloronaphthalene and hexachlorobutadiene in the semivolatile analysis. No positive results were reported for these compounds. Quantitation limits for these compounds in the semivolatile fraction have been rejected and qualified “R”.

LCS reported zero percent (0%) recovery for hexachlorobutadiene in the semivolatile SIM

analysis. No positive result was reported for this compound. Quantitation limits for this compound in the semivolatile SIM fraction have been rejected and qualified “R”.

MINOR PROBLEMS

Hexachlorobutadiene failed precision criteria [Percent Difference (%D)] in the semivolatile SIM continuing calibration. The “UJ” qualifier for this outlier for the quantitation limits of this compound has been superseded by “R”.

The recovery of 2,4-dimethylphenol was outside the lower control limit in the semivolatile SIM LCS analysis. No positive result was reported for this compound. Quantitation limits for this compound in the semivolatile SIM fraction have been qualified “UJ”.

NOTES

Compounds detected below Contract Required Quantitation Limits (CRQLs) have been qualified “J”.

Laboratory blanks were free of contamination.

Positive results were detected in the trip blanks for acetone, bromochloromethane, chloroform, bromodichloromethane, and dibromochloromethane. Additionally toluene was detected in the rinsate blank. No field samples were included in this SDG so no data were qualified due to field blank contamination.

The recovery of n-nitroso-di-n-propylamine was outside the upper control limit in the semivolatile LCS analysis. No positive result was reported for this compound. No data were qualified based on this outlier.

Carbozole failed precision criteria [Percent Relative Standard Deviation (%RSD)] in the semivolatile initial calibration. No positive result was reported for this compound. No data were qualified based on this outlier.

The sample cooler containing sample C0AE0 had an interior temperature of 9.0°C when received by the laboratory. The required temperature of 4°C ± 2°C has been exceeded by 3.0°C. No data were qualified based on this elevated temperature outside criteria.

Tentatively Identified Compounds (TICs) are not reviewed by data validators. The validation qualifiers are applied by EXES electronic software based on laboratory qualifiers. By definition, all compounds identified as TICs should be treated as tentative identifications and should be considered estimated.

A sub-set of manual integrations noted in the laboratory case narrative were evaluated by the reviewer to be accurate and consistent. No action was taken by the reviewer based on manual integrations performed by the laboratory.

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- NJ The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
- C The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS).
- X The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed.

DCN: ESATR3-CY4-V358

Sample Summary Report

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: C0AE0	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: W-1	pH: 1.0	Sample Date: 10/11/2016	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	6.4	J	ug/L	6.4	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	1.5	J	ug/L	1.5	J	1.0	Yes	S4VEM
Chloroform	Target	36		ug/L	36		1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.5		ug/L	5.5		1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	2.0	J	ug/L	2.0	J	1.0	Yes	S4VEM
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	1.4	J	ug/L	1.4	J	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: C0AE1	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location: W-2	pH: 5.0	Sample Date: 10/11/2016	Sample Time: 18:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	UJ	ug/L	0.30	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: C0AE1	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: W-2	pH: 1.0	Sample Date: 10/11/2016	Sample Time: 18:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	5.8	J	ug/L	5.8	J	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	34		ug/L	34		1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.5		ug/L	5.5		1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	2.0	J	ug/L	2.0	J	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	1.3	J	ug/L	1.3	J	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: C0AE1	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location: W-2	pH: 5.0	Sample Date: 10/11/2016	Sample Time: 18:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown 1,2,3,4-Tetrahydropentalene, 1,1-dimethyl-3-cyan	TIC	0.53	J	ug/L	0.53	J	1.0	Yes	NV
Unknown 3-Pyridinecarboxylic acid, 1,2,5,6-tetrahydro-1-	TIC	1.1	JB	ug/L	1.1	JB	1.0	Yes	NV
Unknown Ethanone, 1-(5,6,7,8-tetrahydro-2,8,8-trimethyl-	TIC	0.51	J	ug/L	0.51	J	1.0	Yes	NV
Unknown Ethanol, 2-(hexyloxy)-	TIC	0.65	J	ug/L	0.65	J	1.0	Yes	NV
Unknown 1-Butene-3-ethoxy	TIC	0.64	J	ug/L	0.64	J	1.0	Yes	NV
1-Hexanol, 2-ethyl-	TIC	0.77	JN	ug/L	0.77	JN	1.0	Yes	NV
Total Alkanes	TIC	14	JB	ug/L	14	JB	1.0	Yes	NV
Butanoic acid	TIC	0.55	JN	ug/L	0.55	JN	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: C0AE2	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: W-3	pH: 1.0	Sample Date: 10/11/2016	Sample Time: 00:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: C0AE3	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location: W-4	pH: 1.0	Sample Date: 10/11/2016	Sample Time: 00:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: SBLK49	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(a)pyrene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Target	0.45	U	ug/L	0.45	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	0.30	UJ	ug/L	0.30	U	1.0	Yes	S4VEM
1,4-Dioxane	Target	0.20	U	ug/L	0.20	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	0.30	U	ug/L	0.30	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: SBLK61	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Target	2.0	U	ug/L	2.0	U	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Target	1.0	R	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Target	4.5	U	ug/L	4.5	U	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Unknown Ethanol, 2-[2-[2-[2-[p-(1,1,3,3-tetramethylbutyl	TIC	1.2	J	ug/L	1.2	J	1.0	Yes	NV
Unknown 2-[2-[2-[2-[2-[2-[2-(2-Hydroxyethoxy)ethoxy]e	TIC	0.78	J	ug/L	0.78	J	1.0	Yes	NV
Total Alkanes	TIC	15	J	ug/L	15	J	1.0	Yes	NV
Unknown 3-Pyridinecarboxylic acid, 1,2,5,6-tetrahydro-1-	TIC	0.65	J	ug/L	0.65	J	1.0	Yes	NV

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: SLCS50	Method: Semivolatiles by SIM	Matrix: Water	MA Number: 2521.2
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dibenzo(a,h)anthracene	Spike	0.24	J	ug/L	0.24	J	1.0	Yes	S4VEM
Benzo(g,h,i)perylene	Spike	0.26	J	ug/L	0.26	J	1.0	Yes	S4VEM
Hexachlorobutadiene	Spike	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Spike	0.13	J	ug/L	0.13	J	1.0	Yes	S4VEM
Benzo(a)pyrene	Spike	0.33	J	ug/L	0.33	J	1.0	Yes	S4VEM
1,4-Dioxane	Spike	0.089	J	ug/L	0.089	J	1.0	Yes	S4VEM
2,4-Dimethylphenol	Spike	0.067	J	ug/L	0.067	J	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: SLCS63	Method: Semivolatiles	Matrix: Water	MA Number: 2520.2
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Benzaldehyde	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bis(2-chloroethyl) ether	Target	1.3	J	ug/L	1.3	J	1.0	Yes	S4VEM
2-Chlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,2'-Oxybis(1-chloropropane)	Target	1.2	J	ug/L	1.2	J	1.0	Yes	S4VEM
Acetophenone	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitroso-di-n propylamine	Spike	1.8	J	ug/L	1.8	J	1.0	Yes	S4VEM
Hexachloroethane	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Nitrobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Isophorone	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Nitrophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dimethylphenol	Spike	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Bis(2-chloroethoxy)methane	Target	1.3	J	ug/L	1.3	J	1.0	Yes	S4VEM
2,4-Dichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Naphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chloroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Hexachlorobutadiene	Spike	1.0	U	ug/L	1.0	U	1.0	Yes	S4VEM
Caprolactam	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Chloro-3-methylphenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Methylnaphthalene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Hexachlorocyclo-pentadiene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2,4,6-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4,5-Trichlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
1,1'-Biphenyl	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2-Chloronaphthalene	Spike	0.45	J	ug/L	0.45	J	1.0	Yes	S4VEM
2-Nitroaniline	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Dimethylphthalate	Target	1.4	J	ug/L	1.4	J	1.0	Yes	S4VEM
2,6-Dinitrotoluene	Spike	0.50	J	ug/L	0.50	J	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Acenaphthylene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acenaphthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Dibenzofuran	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
2,4-Dinitrotoluene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Diethylphthalate	Target	1.4	J	ug/L	1.4	J	1.0	Yes	S4VEM
Fluorene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Chlorophenyl-phenyl ether	Target	1.4	J	ug/L	1.4	J	1.0	Yes	S4VEM
4-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4,6-Dinitro-2-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
N-Nitrosodiphenylamine	Target	1.4	J	ug/L	1.4	J	1.0	Yes	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
4-Bromophenyl-phenylether	Target	1.4	J	ug/L	1.4	J	1.0	Yes	S4VEM
Hexachlorobenzene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Atrazine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pentachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Phenanthrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Anthracene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Carbazole	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Di-n-butylphthalate	Target	1.4	J	ug/L	1.4	J	1.0	Yes	S4VEM
Fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Pyrene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Butylbenzylphthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
3,3'-Dichlorobenzidine	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(a)anthracene	Spike	2.3	J	ug/L	2.3	J	1.0	Yes	S4VEM
Chrysene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Bis(2-ethylhexyl)phthalate	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Di-n-octylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzo(b)fluoranthene	Spike	2.2	J	ug/L	2.2	J	1.0	Yes	S4VEM
Benzo(k)fluoranthene	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM
Benzo(a)pyrene	Spike	0.65	J	ug/L	0.65	J	1.0	Yes	S4VEM
Indeno(1,2,3-cd)pyrene	Spike	2.2	J	ug/L	2.2	J	1.0	Yes	S4VEM
Dibenzo(a,h)anthracene	Spike	0.65	J	ug/L	0.65	J	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Benzo(g,h,i)perylene	Spike	0.62	J	ug/L	0.62	J	1.0	Yes	S4VEM
2,3,4,6-Tetrachlorophenol	Target	2.5	U	ug/L	2.5	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: VBLKW1	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Case No: 46440	Contract: EPW14027	SDG No: C0AE0	Lab Code: ALS
Sample Number: VHBLKW1	Method: Volatile Organics	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Acetone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl acetate	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylene chloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Butanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Bromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chloroform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Benzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Trichloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
4-Methyl-2-Pentanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Toluene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
2-Hexanone	Target	10	U	ug/L	10	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Styrene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	Yes	S4VEM

APPENDIX M

INORGANIC DATA VALIDATION REPORT – QUALITY CONTROL SAMPLES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: December 16, 2016

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald 
Region III ESAT PO (3EA22)

TO: Justin Bleiler
RPM

Attached is the inorganic data validation report for the St. Albans Trailer Park site for Case/DAS#46440; SDG#MC0AE1 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: Lafe Kunkel (Core-Env)

Rebecca Patton (Core-Env)

TO: #0002 TDF: #1116019

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ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

Date: November 23, 2016

To: Brandon McDonald
ESAT Region 3 Project Officer

From: Lisa D. Penix
Data Reviewer

Kurt Roby
Oversight Chemist

Subject: Inorganic Data Validation (S4VEM)
Site: St. Albans Trailer Park
Case: 46440 SDG: MC0AE1

Overview

Case 46440, Sample Delivery Group (SDG) MC0AE1, consisted of one (1) rinsate blank analyzed for total metals by ICP – MS. Analysis was performed by Chemtex (CHX) in accordance with Contract Laboratory Program (CLP) Statement of Work (SOW) ISM02.3 through the Routine Analytical Services (RAS) program.

SUMMARY

Data were validated according to inorganic National Functional Guidelines, utilizing Environmental Data Exchange and Evaluation System (EXES) and are assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual).

Areas of concern with respect to data usability are listed below.

Laboratory quality control analyses were performed on sample MC0AE1, which is a rinsate blank. No data were qualified based on this finding.

NOTES

Aluminum (Al), copper (Cu), and nickel (Ni) have been detected in laboratory blanks associated with the sample in this SDG. Reported concentrations for these analytes less than Contract Required Quantitation Limits (CRQLs) have been reported at the CRQL and qualified “U”.

Analytes detected below Contract Required Quantitation Limits (CRQLs) were attributed to blank contamination.

All laboratory quality control analyses were within control limits.

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- B The result is presumed a blank contaminant. This qualifier is used only in drinking water samples.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

DCN: ESATR3-CY4-V328

Sample Summary Report

Case No:	46440	Contract:	EPW15007	SDG No:	MC0AE1	Lab Code:	CHX
Sample Number:	LCSD87	Method:	Metals by ICP-MS	Matrix:	Water	MA Number:	
Sample Location:	pH:		Sample Date:		Sample Time:		
% Moisture :			% Solids :				

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	43.1		ug/L	43.1		1	Yes	S4VEM
Antimony	Target	4.4		ug/L	4.4		1	Yes	S4VEM
Arsenic	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Barium	Target	21.0		ug/L	21.0		1	Yes	S4VEM
Beryllium	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Cadmium	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Calcium	Target	1160		ug/L	1160		1	Yes	S4VEM
Chromium	Target	3.9		ug/L	3.9		1	Yes	S4VEM
Cobalt	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Copper	Target	4.2		ug/L	4.2		1	Yes	S4VEM
Iron	Target	406		ug/L	406		1	Yes	S4VEM
Lead	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Magnesium	Target	1000		ug/L	1000		1	Yes	S4VEM
Manganese	Target	1.9		ug/L	1.9		1	Yes	S4VEM
Nickel	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Potassium	Target	1100		ug/L	1100		1	Yes	S4VEM
Selenium	Target	10.8		ug/L	10.8		1	Yes	S4VEM
Silver	Target	2.0		ug/L	2.0		1	Yes	S4VEM
Sodium	Target	1000		ug/L	1000		1	Yes	S4VEM
Thallium	Target	2.1		ug/L	2.1		1	Yes	S4VEM
Vanadium	Target	9.5		ug/L	9.5		1	Yes	S4VEM
Zinc	Target	4.0		ug/L	4.0		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AE1	Lab Code: CHX
Sample Number: MC0AE1	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: W-2	pH:	Sample Date: 10/11/2016	Sample Time: 18:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	20.0	U	ug/L	19.1	J	1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Barium	Target	10.0	U	ug/L	10.0	U	1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Chromium	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Cobalt	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Copper	Target	2.0	U	ug/L	0.27	J	1	Yes	S4VEM
Iron	Target	200	U	ug/L	200	U	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Manganese	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Nickel	Target	1.0	U	ug/L	0.23	J	1	Yes	S4VEM
Potassium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	4.2		ug/L	4.2		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AE1	Lab Code: CHX
Sample Number: MC0AE1D	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date: 10/11/2016	Sample Time: 18:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	19.7		ug/L	19.7	J	1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Barium	Target	10.0	U	ug/L	10.0	U	1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Chromium	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Cobalt	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Copper	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Iron	Target	200	U	ug/L	200	U	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Manganese	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Nickel	Target	0.24	J	ug/L	0.24	J	1	Yes	S4VEM
Potassium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Selenium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	4.3		ug/L	4.3		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AE1	Lab Code: CHX
Sample Number: MC0AE1L	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	28.5	J	ug/L	28.5	J	5	Yes	S4VEM
Antimony	Target	10.0	U	ug/L	10.0	U	5	Yes	S4VEM
Arsenic	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Barium	Target	50.0	U	ug/L	50.0	U	5	Yes	S4VEM
Beryllium	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Cadmium	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Calcium	Target	950	J	ug/L	950	J	5	Yes	S4VEM
Chromium	Target	10.0	U	ug/L	10.0	U	5	Yes	S4VEM
Cobalt	Target	1.1	J	ug/L	1.1	J	5	Yes	S4VEM
Copper	Target	10.0	U	ug/L	10.0	U	5	Yes	S4VEM
Iron	Target	1000	U	ug/L	1000	U	5	Yes	S4VEM
Lead	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Magnesium	Target	2500	U	ug/L	2500	U	5	Yes	S4VEM
Manganese	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Nickel	Target	1.5	J	ug/L	1.5	J	5	Yes	S4VEM
Potassium	Target	2500	U	ug/L	2500	U	5	Yes	S4VEM
Selenium	Target	25.0	U	ug/L	25.0	U	5	Yes	S4VEM
Silver	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Sodium	Target	2500	U	ug/L	2500	U	5	Yes	S4VEM
Thallium	Target	5.0	U	ug/L	5.0	U	5	Yes	S4VEM
Vanadium	Target	25.0	U	ug/L	25.0	U	5	Yes	S4VEM
Zinc	Target	6.6	J	ug/L	6.6	J	5	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AE1	Lab Code: CHX
Sample Number: MC0AE1S	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date: 10/11/2016	Sample Time: 18:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Antimony	Spike	111		ug/L	111		1	Yes	S4VEM
Arsenic	Spike	37.3		ug/L	37.3		1	Yes	S4VEM
Barium	Spike	2110		ug/L	2110		1	Yes	S4VEM
Beryllium	Spike	52.3		ug/L	52.3		1	Yes	S4VEM
Cadmium	Spike	54.0		ug/L	54.0		1	Yes	S4VEM
Chromium	Spike	186		ug/L	186		1	Yes	S4VEM
Cobalt	Spike	497		ug/L	497		1	Yes	S4VEM
Copper	Spike	268		ug/L	268		1	Yes	S4VEM
Lead	Spike	19.5		ug/L	19.5		1	Yes	S4VEM
Manganese	Spike	468		ug/L	468		1	Yes	S4VEM
Nickel	Spike	509		ug/L	509		1	Yes	S4VEM
Selenium	Spike	108		ug/L	108		1	Yes	S4VEM
Silver	Spike	51.0		ug/L	51.0		1	Yes	S4VEM
Thallium	Spike	49.4		ug/L	49.4		1	Yes	S4VEM
Vanadium	Spike	466		ug/L	466		1	Yes	S4VEM
Zinc	Spike	545		ug/L	545		1	Yes	S4VEM

Case No: 46440	Contract: EPW15007	SDG No: MC0AE1	Lab Code: CHX
Sample Number: PBWD87	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	20.0	U	ug/L	20.0	U	1	Yes	S4VEM
Antimony	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Arsenic	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Barium	Target	10.0	U	ug/L	10.0	U	1	Yes	S4VEM
Beryllium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Cadmium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Calcium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Chromium	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Cobalt	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Copper	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM
Iron	Target	200	U	ug/L	200	U	1	Yes	S4VEM
Lead	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Magnesium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Manganese	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Nickel	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Potassium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Selenium	Target	0.69	J	ug/L	0.69	J	1	Yes	S4VEM
Silver	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Sodium	Target	500	U	ug/L	500	U	1	Yes	S4VEM
Thallium	Target	1.0	U	ug/L	1.0	U	1	Yes	S4VEM
Vanadium	Target	5.0	U	ug/L	5.0	U	1	Yes	S4VEM
Zinc	Target	2.0	U	ug/L	2.0	U	1	Yes	S4VEM

APPENDIX N

WASTE CHARACTERIZATION SAMPLE DOCUMENTATION



US EPA Region 3 Analytical Request (ARF) 2.0

[EPA Website](#)Date Submitted 10/20/16

Sampling Site Information

Is this a new sampling site? Yes No

Site Name St. Albans Trailer Park				EPA ID (aka CERCLIS No.) WVD988783064		
Street Address 369 West Main Street		City St. Albans			State WV	Zip Code 25177
Division or Office			Site Activity Site Inspection (SI)			
Program Superfund (RAS and/or DAS)	Account Number 2016 T 03W 303DD2 A36AQB00			Spill ID (aka SSID) A36A		Operable Unit

QA Document Information Must be approved prior to sampling. Refer to CIO 2105.0 (formerly 5360.1 A2) for acceptable exceptions.

Title Sampling and Analysis Plan - Saint Albans Trailer Park	Approved by Denise Hight, WVDEP DOD/PA/SI Project Manager	Date 07/20/2016
---	--	--------------------

Contact Information

EPA Project Lead Justin Bleiler	Phone Number 2158143308	Cell Number	Email justin.bleiler@epa.gov	Contractor NA
Site Leader Lafe Kunkel	Phone Number 3042922673	Cell Number 8624323891	Email lkunkel@core-env.com	
Analytical Request Preparer Rebecca Patton	Phone Number 3042922673	Cell Number 3042900126	Email rpatton@core-env.com	EPA CO/PO NA

Analysis Information

QTY	Matrix	Parameter	Method	Validation Level	Unvalidated Data TAT (number of days)		Final Report Due: # of Days from last sample shipped	
				
X 1	Solid Waste	CLP TCLP VOC	SOM02.3	Organic Level 2 (M2)	14	28		
X 1	Solid Waste	CLP TCLP SVOC/PAH	SOM02.3	Organic Level 2 (M2)	14	28		
X 1	Solid Waste	CLP TCLP Metals	ISM02.3	Inorganic Level 2 (IM2)	14	28		



US EPA Region 3 Analytical Request (ARF) 2.0

[EPA Website](#)Date Submitted 10/20/16

	QTY	Matrix		Parameter		Method		Validation Level	Unvalidated Data TAT (number of days)		Final Report Due: # of Days from last sample shipped		
X	1	Solid Waste	....	Ignitability/Flash Point	....	1010A/1030	....	Organic Level 2 (M2)	....	14	....	28	....
Sample(s) Shipping Dates		Electronic Data Deliverable (EDDs)		Quantitation Limits (QLs), Detection Limits (DLs) are: Attached in the Email									
Start Date 10/25/2016	End Date 12/6/2016	Yes											

Special Instructions: Indicate below if any samples are potable or select matrix of "potable" above.

If this will be a reoccurring event, give sampling details. Note: only one ARF is needed per year of sampling.

Add any other descriptive information, including QLs, if not attached.

Material to be sampled is an unidentified waste material that exists as a semi-solid, elastic polymer. Analysis is being requested in order to accomplish waste characterization for possible landfill disposal. Percent Solids Determination via EPA Method 2540 will be required.



US EPA Final Laboratory Assignment Report

CT Number:	<u>CT8054</u>	Date Receipt:	<u>10/20/2016</u>	<u>Sample(s) Shipping Dates</u>			
Start:	<u>10/25/2016</u>	End:	<u>12/06/2016</u>	ARF Status:	<u>COMPLETE</u>		
Site: <u>ST. ALBANS TRAILER PARK</u>		Site Activity: <u>SITE INSPECTION (SI)</u>		Program: <u>SUPERFUND (RAS AND/OR DAS)</u>			
Street: <u>369 WEST MAIN STREET</u>		City: <u>ST. ALBANS</u>		State: <u>WV</u> Zip: <u>25177</u>			
Account No: <u>2017 T 03N 303DD2 A36AQB00</u>		SPILL ID:	<u>A36A</u>	OPERABLE UNIT:	EPA ID (aka CERCLIS): <u>WVD988783064</u>		
QA Title: <u>SAMPLING AND ANALYSIS PLAN - SAINT ALBANS TRAILER PARK</u> QA Date Approved: <u>07/20/16</u>							
EPA Project Lead:		JUSTIN BLEILER	Phone:	2158143308	Cell Phone #:		
Site Leader:		LAFE KUNKEL	Phone:	3042922673	Cell Phone #:		
Request Preparer:		REBECCA PATTON	Phone:	3042922673	Cell Phone #:		
Contractor:		NA	EPA CO/PO:	NA			
Special Instructions:		MATERIAL TO BE SAMPLED IS AN UNIDENTIFIED WASTE MATERIAL THAT EXISTS AS A SEMI-SOLID, ELASTIC POLYMER. ANALYSIS IS BEING REQUESTED IN ORDER TO ACCOMPLISH WASTE CHARACTERIZATION FOR POSSIBLE LANDFILL DISPOSAL. PERCENT SOLIDS DETERMINATION VIA EPA METHOD 2540 WILL BE REQUIRED.					
Comments:		11/2/16: CHEMTEX 1 WASTE SAMPLE BY MA 2604.0 TCLP METALS. JS NO BIDS RECEIVED FOR TCLP SAMPLES - MUST GO TIER IV. JB NOTIFIED SAMPLER 11/7/16. NOTIFICATION MADE 11/7/16 BY JS.					

DAS	RAS	NSF	Lab Assigned	QTY	Matrix	Parameter	Requested Method	Accepted Method	Validation Level	Unvalidated Data Due	Final Report Due	EDD Required
	46642		CHMTX	1	SOLID WASTE	CLP TCLP METALS	ISM02.3	ISM02.3	IM2	14	28	Y
R35047			TIER IV	1	SOLID WASTE	CLP TCLP SVOC/PAH	SOM02.3	SOM02.3	M2	14	28	Y
R35047			TIER IV	1	SOLID WASTE	CLP TCLP VOC	SOM02.3	SOM02.3	M2	14	28	Y
R35038			OASQA	1	SOLID WASTE	IGNITABILITY/FLASH POINT	1010A/1030	1010A/1030	M2	14	28	Y

Analytical Services Request Regional Notification

EPA Region 3 - Case # 46642

General Information

Sampling Company: Core Environmental Services, Inc
Sampling Contact Name: Rebecca Patton
Sampling Contact Email: rpatton@core-env.com
Sampling Contact Number: 304-292-2673
Proposed Shipping Start Date: 10/25/2016
Proposed Shipping End Date: 11/25/2016

Project Information

Project Name: ST. ALBANS TRAILER PARK Project
EPA Project Number: 8054
EPA Account Number: 2016 T 03W 303DD2 A36AQB00
Site Spill ID: A6A
Site Name: ST. ALBANS TRAILER PARK
Site City: ST. ALBANS
Site State: WV
Cerclis: WVD988783064
Operable Unit: 00
Purpose: Remedial Investigation
Activity Code: LA
Special Funding: N

Additional Information

Preliminary Results Email:

General Comments: 11/1-Sol 2928 awarded to CHX
Request for unvalidated and Lvl-2 validated data/EDDs.

***Original sample shipping end date - 12/06/2016.

Scheduling Information

CHEMTEX - Port Arthur, TX

3082 25th St
Port Arthur, TX 77642

Phone Number: 409-983-4575

Laboratory Contact: Dr. C.N. Reddy
409-983-4575
cnr@chemtexas.com

Sample Custodian: Jeevan Yeddula
409-983-4575
jeevan@chemtexas.com

Statement(s) of Work: ISM02.3

# of Samples	Matrix	Analysis	T A T	Sol. #	MA Number	Lab Del.	P R	Ship Period
1	Waste	TCLP ICP-AES 5-10 Metals: Ag, As, Ba, Cd, Cr, Pb, Se	21	2928	2604.0	3	N	10/25/2016 - 11/25/2016

USEPA CLP COC (REGION COPY)

DateShipped: 1/3/2017

CarrierName: FedEx

Airbill No: 806092038564

CHAIN OF CUSTODY RECORD

Waste Characterization

Case #: 46642

Cooler #: 1

No: 3-122916-133013-0002

Lab: Chemtex

Lab Contact: Dr. C.N. Reddy

Lab Phone: 409-983-4575

Special Instructions: Analysis Key: TCLP METALS=CLP TCLP Metals	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
--	--

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Batten CORE Environmental	1/3/17 16:00			

USEPA CLP COC (REGION COPY)

DateShipped: 1/3/2017

CarrierName: FedEx

AirbillNo: 806092038759

CHAIN OF CUSTODY RECORD

Waste Characterization

DAS #: R35038

Cooler #: 1

No: 3-122916-133136-0003

Lab: OASQA

Lab Contact: Environmental Science Center

Lab Phone: 410-305-2732

Special Instructions:	Shipment for Case Complete? N
	Samples Transferred From Chain of Custody #

Analysis Key: IGNIT=Ignitability

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Gattan CORE Environmental	1/3/17 16:00			

Page 1 of 1

USEPA CLP COC (LAB COPY)

DateShipped: 1/3/2017

CarrierName: Courier Pickup

Airbill No: N/A

CHAIN OF CUSTODY RECORD

No: 3-122916-132625-0001

Lab: REIC Consultants, Inc.

Lab Contact: Jimmy Suttle

Lab Phone: 304-255-2500

DAS #: R35047

Cooler #: 1

Special Instructions:	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
-----------------------	--

Analysis Key: TCLP SVOA=TCLP SVOC/PAH, TCLP VOA=TCLP Volatiles

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

APPENDIX O

WASTE CHARACTERIZATION ANALYTICAL REPORTS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Final Analytical Report

Site Name.....	St. Albans Trailer Park
Sample Collection Date(s).....	01/03/17 13:30
Contact.....	Justin Bleiler
Report Date.....	01/31/17 06:52
Project #.....	DAS R35038
Work Order.....	1701003

Analyses included in this report:

Ignitability by SW846 1030

Approved for Release

Karen Costa

OASQA Representative



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: St. Albans Trailer Park

Project #: DAS R35038

Report Narrative

Ignitability Analysis Note:

One solid sample was analyzed as an **On-Demand** request for solids ignitability by EPA SW846 Method 1030. This request falls outside OASQA's routine protocols. The samples were analyzed and evaluated based on "On Demand" criteria, which include all quality control checks incorporated in routine analyses. These protocols are specified in the EPA Region III, OASQA Reg 3 Laboratory Quality Manual (current revision).

Positive and negative controls evaluated prior to sample analysis met the method criteria.

Thermal expansion and the generation of gas was observed from the sample. Some portions completely volatilized, while other areas remained as a high-viscosity solid with surface charring resulting from direct application of the flame. It is unknown if the gas generated in this way combusted. Sub-surface portions immediately below the area of flame application showed no change from the original sample when the surface char was scraped away. Char propagated locally on the surface near the site of flame application, but only across 50mm of the 100mm length of the sample analyzed, and flame did not propagate across the sample. As such, the sample gave a negative result for ignitability. It did not ignite during the 2-minute application of a flame.

1701003 Final Repo DAS R35038

01/31/2017



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: St. Albans Trailer Park

Project #: DAS R35038

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Matrix	Date Sampled	Date Received
WC-1	1701003-01	Waste	1/03/17 13:30	1/04/17 11:09

USEPA CLP COC (LAB COPY)

DateShipped: 1/3/2017

CarrierName: FedEx

Airbill No: 806092038759

CHAIN OF CUSTODY RECORD

No: 3-122916-133136-0003

Lab: OASQA

Lab Contact: Environmental Science Center

Lab Phone: 410-305-2732

DAS #: R35038

Cooler #: 1

Special Instructions: Analysis Key: IGNIT=Ignitability	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
---	--

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Batten CORE	1/3/17 16:00	Alex Dene E8A7	1/4/17 11:07	7°C <i>dry</i> 1/4/17



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

**Site Name:** St. Albans Trailer Park**Project #:** DAS R35038**Station ID:** WC-1**Lab ID:** 1701003-01**Sample Matrix:** Waste**Date Collected:** 01/03/2017**Physical Parameters****Targets**

Analyte	Result no units	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Ignitability	No Flash			1	01/18/17	01/18/17 09:49	SW846 1030



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: St. Albans Trailer Park

Project #: DAS R35038

QC Data
Physical Parameters

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	--------------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

Batch BA71804 - Ignitability Prep**Duplicate (BA71804-DUP1)****Source: 1701003-01**

Prepared: 01/18/17 09:08

Analyzed: 01/18/17 09:49

Ignitability	No Flash	no units	No Flash	200
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: St. Albans Trailer Park

Project #: DAS R35038

Notes and Definitions

%REC Percent Recovery

RPD Relative Percent Difference

U Analyte included in the analysis, but not detected at or above the quantitation limit.

NR Not Reported

QUANTITATION LIMIT: The lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method and that takes into account analytical adjustments made during sample preparation and analysis.

SOLID SAMPLE RESULTS - REPORTING PROTOCOL: Solid samples where % Solids (percent dry wt at 105 degrees C) has been performed, are analyzed wet and converted to a dry weight result for reporting purposes. This is routine for organics and most inorganic analyses. When metals and mercury analyses are requested, solid samples are routinely analyzed and reported on a dry weight basis. Solid samples for metals/mercury are prepared for analysis by an initial drying at 60 degree C and homogenization before digestion. Oil-type samples will be analyzed and reported on a wet weight basis for all analyses because of the nature of the sample. Any exceptions to the protocol will be noted with a qualifier

ON-DEMAND: The term 'on-demand' analysis, if noted in the report narrative, refers to Section 13.1.4 in the Region III OASQA Laboratory Quality Manual, which provides procedures for non-routine analyses or analytes.



3082 25th Street, Port Arthur, Texas 77642, Ph: 409-983-4575, Fax 409-982-1522

SOW #: ISM02.3

Contract #: EP-W-15-007

Case #: 46642

SDG #: MC0AA0

SDG NARRATIVE

SAMPLE RECEIPT & LOGIN

The following samples were received on the dates listed against them. The samples were logged in for analysis as listed.

<u>Client Sample</u>	<u>Lab Sample</u>	<u>Matrix</u>	<u>#Cont.</u>	<u>Received</u>	<u>Analysis</u>	<u>Comments</u>
MC0AA0	1295-01	Soil	1	01/04/17 08:41	ISM02.3 TCLP ICPAES	QC

ISM02.3 ICPAES = Ag, As, Ba, Cd, Cr, Pb, Se (MA 2604.0)

Samples were received in a box. The cooler temperatures was

Cooler ID	Temperature (°C)
1295A	4.6

The following issues were noted:

Issue: The laboratory received one waste sample for Case 46642 today. The sample on the COC is listed with PRs and a 14 day TAT. However, the Case is scheduled with a 21 day TAT and no PRs.

Resolution: In accordance with previous direction from Region 3, the laboratory will note the issue in the SDG narrative and proceed with the analysis of the samples as indicated on the Scheduling Notification Form. The resolution will be applied to all COCs received for this Case that list information that does not match the Scheduling Notification Form.

SOW #: ISM02.3

Contract #: EP-W-15-007

Case #: 46642

SDG #: MC0AA0

SDG NARRATIVE**ICP-AES**

Sample was prepared and analyzed as per ISM02.3 SOW and MA instructions.

TCLP:

Sample was digested by Hot-Block technique (200.7) and analyzed using a Thermo Electron ICAP6500.

MS was performed on sample "MC0AA0". Recoveries were within the QC limits.

Dup was performed on sample "MC0AA0". RPDs were within the QC limits.

Serial Dilution is performed on sample "MC0AA0". Percent Differences (%D) were within QC limits.

No other problems were encountered during sample preparation or analysis.

The following equations are used for calculation of sample results from raw instrument output data:

ICP-AES**Aqueous/Water Sample Calculation:**

$$\text{Concentration } (\mu\text{g/L}) = C \times \frac{V_f}{V} \times DF$$

WHERE,

C = Instrument value in $\mu\text{g/L}$ (The average of all replicate exposures)

V_f = Final digestion volume (mL)

V = Initial aliquot amount (mL) DF = Dilution Factor

I certify that this Sample Data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy Sample Data Package and in the electronic data deliverable has been authorized by the laboratory Manager or Manager's designee, as verified by the following signature.

Signature and Title

(QUALITY MANAGER)

01 | 13 | 2017

Date of Signature

EPA SAMPLE NO.

FORM I-IN
INORGANIC ANALYSIS DATA SHEET

MCOAAO

Lab Name: CHEMTEXContract: EPW15007Lab Code: CHX Case No.: 46642MA No.: 2604.0 SDG No.: MCOAAOMatrix: WaterLab Sample ID: 0001295-01

% Solids: _____

Date Received: 01/04/2017Analytical method: ICP-AESConcentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight or μg): mg/L

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	0.0064	J	01/12/2017	1014
7440-39-3	Barium	0.16	J	01/12/2017	1014
7440-43-9	Cadmium	0.0050	U	01/12/2017	1014
7440-47-3	Chromium	0.016		01/12/2017	1014
7439-92-1	Lead	0.035		01/12/2017	1014
7782-49-2	Selenium	0.035	U	01/12/2017	1014
7440-22-4	Silver	0.0019	J	01/12/2017	1014

NOTE: Hardness (total) is reported in mg/L

Comments:

USEPA CLP COC (LAB COPY)

DateShipped: 1/3/2017

CarrierName: FedEx

AirbillNo: 806092038564

CHAIN OF CUSTODY RECORD

Case #: 46642

Cooler #: 1

No: 3-122916-133013-0002

Case# 4-6642
SDG: MC0AA0 No: 3-122
WORKORDER 1295

Lab: Chemtex

Lab: Chemtex

Lab Contact: Dr. C.N. Reddy

Lab Phone: 409-983-4575

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
46642-0001	MC0AA0	Waste/ Rebecca Patton	Grab	TCLP METALS(14)/PR	1000 (Wet ice) (1)	WC-1	01/03/2017 13:30	i295-01 K4 01/04/2017

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

- NA -

Analysis Key: TCLP METALS=CLP TCLP Metals

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Rebecca Batten CORE Environmental	1/3/17 16:00	Bethany / CTERMTEX	01/04/2017 08:41	INTACT

KY 01 | 04/2017

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Improving the environment, one client at a time...

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Friday, January 13, 2017

Rebecca Patton
CORE ENVIRONMENTAL SERVICES INC
4 BROOKSTONE PLAZA
MORGANTOWN, WV 26508

TEL: (304) 292-2673

FAX:

RE:

Work Order #: 17010339

Dear Rebecca Patton:

REI Consultants, Inc. received 1 sample(s) on 1/4/2017 for the analyses presented in the following report.

Sincerely,

Jimmy Suttle

Project Manager



Client: CORE ENVIRONMENTAL SERVICES INC**Project:**

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP and/or VELAP requirements for parameters clearly designated as PA, VA, PA/VA, or VELAP in the column labeled NELAP.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

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DEFINITIONS:

MCL: Maximum Contaminant Level

MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.

Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).

NA: Not Applicable

ND: Not Detected at the PQL or MDL

PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.

Qual: Qualifier that applies to the analyte reported.

TIC: Tentatively Identified Compound, Estimated Concentration denoted by "J" qualifier.

Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:

X: Reported value exceeds required MCL

B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL

E: The sample result is within the method accepted Linear Dynamic Range determined by the lab for this analysis. However, it may be considered estimated when applying the TNI (The NELAC Institute) standard.

H: Holding time for preparation or analysis has been exceeded.

J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.

S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:

Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, NCDWQ 466, PADEP 68-00839, VADCLS(VELAP) 460148

Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460148, PADEP 68-00839

Roanoke, VA: VADCLS(VELAP) 460150

Verona, VA: VADCLS(VELAP) 460151

Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 17010339

Date Reported: 1/13/2017

Client:	CORE ENVIRONMENTAL SERVICES INC	Collection Date:	1/3/2017 1:30:00 PM
Project:		Date Received:	1/4/2017
Lab ID:	17010339-01A	Matrix:	Solid
Client Sample ID:	WC-1	Site ID:	46642 WV

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
TCLP Percent Solids					Method: SW1311			Analyst: JB
Percent Solids	100	NA	NA	NA	wt%		01/09/17 1:22PM	
PERCENT MOISTURE					Method: SM2540 B-1997			Analyst: RM
Percent Moisture	8.0	0.010	0.50	NA	wt%		01/09/17 9:59AM	
TCLP SEMIVOLATILES					Method: SW1311/8270D			Analyst: CL
Pyridine	ND	0.00950	0.0475	5.00	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
o-cresol	ND	0.00950	0.0475	200	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
m,p-cresol	ND	0.00950	0.0475	200	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
1,4-Dichlorobenzene	ND	0.00950	0.0475	7.50	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
2,4-Dinitrotoluene	ND	0.00950	0.0475	0.130	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
Hexachlorobenzene	ND	0.00950	0.0475	0.130	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
Hexachlorobutadiene	ND	0.00950	0.0475	0.500	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
Hexachloroethane	ND	0.00950	0.0475	3.00	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
Nitrobenzene	ND	0.00950	0.0475	2.00	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
Pentachlorophenol	ND	0.00950	0.0475	100	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
2,4,5-Trichlorophenol	ND	0.00950	0.0475	400	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
2,4,6-Trichlorophenol	ND	0.00950	0.0475	2.00	mg/L	01/10/17 8:51AM	01/10/17 8:30PM	PA/VA
Surr: 2-Fluorophenol	136	NA	15.47-11	NA	S	%Rec	01/10/17 8:51AM	01/10/17 8:30PM
Surr: Phenol-d5	799	NA	20.6-115	NA	S	%Rec	01/10/17 8:51AM	01/10/17 8:30PM
Surr: 2,4,6-Tribromophenol	80.8	NA	46.3-136	NA		%Rec	01/10/17 8:51AM	01/10/17 8:30PM
Surr: Nitrobenzene-d5	36.5	NA	33.6-146	NA		%Rec	01/10/17 8:51AM	01/10/17 8:30PM
Surr: 2-Fluorobiphenyl	67.5	NA	26.3-124	NA		%Rec	01/10/17 8:51AM	01/10/17 8:30PM
Surr: 4-Terphenyl-d14	76.0	NA	31.7-127	NA		%Rec	01/10/17 8:51AM	01/10/17 8:30PM
SEMIVOLATILE ORGANIC COMPOUNDS					Method: SW8270D			Analyst: CL
Acenaphthene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Acenaphthylene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Anthracene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Benzo(a)anthracene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Benzo(a)pyrene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Benzo(b)fluoranthene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Benzo(g,h,i)perylene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Benzo(k)fluoranthene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Chrysene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Dibeno(a,h)anthracene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Fluoranthene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Fluorene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Indeno(1,2,3-cd)pyrene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Naphthalene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 17010339

Date Reported: 1/13/2017

Client:	CORE ENVIRONMENTAL SERVICES INC	Collection Date:	1/3/2017 1:30:00 PM
Project:		Date Received:	1/4/2017
Lab ID:	17010339-01A	Matrix:	Solid
Client Sample ID:	WC-1	Site ID:	46642 WV

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
Phenanthrene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Pyrene	ND	0.382	1.91	NA	mg/Kg	01/09/17 4:23PM	01/10/17 11:16PM	PA/VA
Surr: Nitrobenzene-d5	89.3	NA	23.3-114	NA	%Rec	01/09/17 4:23PM	01/10/17 11:16PM	
Surr: 2-Fluorobiphenyl	79.3	NA	24.2-119	NA	%Rec	01/09/17 4:23PM	01/10/17 11:16PM	
Surr: 4-Terphenyl-d14	88.3	NA	37.5-127	NA	%Rec	01/09/17 4:23PM	01/10/17 11:16PM	

TCLP Volatile Percent Solids	Method: SW1311					Analyst: MD
Percent Solids	100	0	NA	NA	wt%	01/11/17 4:28PM

TCLP VOLATILE ORGANIC COMPOUNDS				Method: SW1311/8260B				Analyst: MD		
Benzene	4.72	0.0250	0.0500	0.500	X	mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
Carbon tetrachloride	ND	0.0250	0.0500	0.500		mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
Chlorobenzene	ND	0.0250	0.0500	100		mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
Chloroform	1.13	0.0250	0.0500	6.00		mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
1,1-Dichloroethene	3.46	0.0250	0.0500	0.700	X	mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
1,2-Dichloroethane	0.339	0.0250	0.0500	0.500		mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
Methyl ethyl ketone	ND	0.250	0.500	200		mg/L	01/10/17 4:18PM	01/11/17 4:28PM		
Tetrachloroethene	4.95	0.0250	0.0500	0.700	X	mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
Trichloroethene	2.72	0.0250	0.0500	0.500	X	mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
Vinyl chloride	ND	0.0250	0.0500	0.200		mg/L	01/10/17 4:18PM	01/11/17 4:28PM	PA/VA	
Surr: 1,2-Dichloroethane-d4	102	NA	80-120	NA		%Rec	01/10/17 4:18PM	01/11/17 4:28PM		
Surr: 4-Bromofluorobenzene	104	NA	80-120	NA		%Rec	01/10/17 4:18PM	01/11/17 4:28PM		
Surr: Dibromofluoromethane	87.1	NA	79.4-131	NA		%Rec	01/10/17 4:18PM	01/11/17 4:28PM		
Surr: Toluene-d8	97.0	NA	74-121	NA		%Rec	01/10/17 4:18PM	01/11/17 4:28PM		



Improving the environment, one client at a time...

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304)255-2500
Website: www.reiclabs.com

Sample Receipt Checklist

Client Name:	COR001	Work Order Number:	17010339
RCPNo:	1	Date and Time Received:	1/4/2017 5:40:00 PM
		Received by:	John McGee
Completed By:	Traves Meadows	Reviewed By:	Jimmy Suttle
Completed Date:	1/5/2017 8:55:36 AM	Reviewed Date:	1/5/2017 10:42 AM

Carrier Name: Client

- | | | | |
|--|---|-----------------------------|---|
| 1. Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 2. Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 3. Are matrices correctly identified on Chain of custody? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 4. Is it clear what analyses were requested? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 5. Custody seals intact? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 6. Samples in proper container type and preservative? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 7. Were correct preservatives noted on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 8. Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 9. Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 10. Were container labels complete? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 11. All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 12. Was an attempt made to cool the samples? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 13. Sample Temp. taken and recorded upon receipt? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | To 3.4 °C |
| 14. Water - Were bubbles absent in VOC vials? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No Vials <input checked="" type="checkbox"/> |
| 15. Are Samples considered acceptable? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 16. COC filled out properly? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

Client Notification/Response

Client Name:	COR001	Work Order Number:	17010339
Comment:			
Client Contacted:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Contact Mode:	Phone <input type="checkbox"/>	Fax: <input type="checkbox"/>	Email: <input type="checkbox"/>
Date Contacted:	Person Contacted:		
Regarding:	In Person: <input type="checkbox"/>		
Client Instructions:			
Corrective Action:			

467895

CHAIN OF CUSTODY RECORD



Research Environmental & Industrial Consultants, Inc.

MAIN LABORATORY & CORPORATE HEADQUARTERS:

P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • 304-255-2572/fax • www.reiclabs.com

**MID-OHIO VALLEY
Service Center**
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH
Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE
Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN
Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME

RUSH TURNAROUND™

NORMAL

5

1

DAY

2 D.

1 DAY

*Bush work needs prior laboratory approval and will incur additional charges.

All analytical requests are subject to REIC's Standard Terms and Conditions.

Send Results Via

An icon of an envelope with a blue 'X' over it, indicating that an email has not been sent or is being rejected.

Fa

ANALYSIS & METHOD REQUESTED
TCLP VOCs SVOCs 10AH

Temperature at arrival: **44** °C ICED? Y N Containers provided by: REIC Client Delivered by: Client REIC UPS FedEx USPS Other

1	<i>Deborah Borth</i>	1/4/17 12:40	2	Relinquished by (signature)	Date/Time	3	Relinquished by (signature)	Date/Time
	Received by (signature)		4	<i>Deborah Borth</i>	Date/Time	5	Received by (signature)	Date/Time
	<i>Deborah Borth</i>			6	Relinquished by (signature)	Date/Time		
7	<i>Deborah Borth</i>	1/4/17 12:40	8	Relinquished by (signature)	Date/Time	9	Received by (signature)	Date/Time

Page 1 of 1

USEPA CLP COC (LAB COPY)

DateShipped: 1/3/2017

CarrierName: Courier Pickup

Airbill No: N/A

CHAIN OF CUSTODY RECORD

No: 3-122916-132625-0001

Lab: REIC Consultants, Inc.

Lab Contact: Jimmy Suttle

Lab Phone: 304-255-2500

DAS #: R35047

Cooler #: 1

Special Instructions:	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
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Analysis Key: TCLP SVOA=TCLP SVOC/PAH, TCLP VOA=TCLP Volatiles

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt